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ABSTRACT

The second in a series of reports providing information about current and former students of Harrisburg Area Community College (Pennsylvania), this study describes the graduates of the college, their post-graduate activities, and their evaluations of experiences at the college. A questionnaire was distributed to alumni who were graduated in 1966, 1967, and 1968. Responses were received from 69.2 per cent of the graduates polled. Among the findings were: (1) 60 per cent of the respondents were male, 66 per cent were single, and the average age for both groups was 22; (2) 75 per cent were students at 4-year colleges or universities, and 33 per cent were emplcyed full time; (3) 92 per cent of the alumni rated highly their junior college experiences. (MS)

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Research Report No. 2

A PROFILE OF GRADUATES

A Description of the Characteristics, Perceptions, and Activities of Graduates, Spring 1969

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UNIVERSITY OF CALIF.
LOS ANGELES

FEB 20 1970

ERIC CLEARINGHOUSE
FOR JUNIOR COLLEGES

JC 700 058

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Harrisburg Area Community College graduated its fourth class in May, 1969. This report is one of a series designed to provide information about the characteristics, perceptions, and activities of current and former students of the College. The purpose of this report, the second in the series, is threefold: to provide a description of the graduates of H.A.C.C., to examine their activities since they received their associate degrees, and to examine their evaluations of experiences at Harrisburg Area Community College.

The data for this report were obtained by means of a questionnaire mailed to persons who graduated in 1966, 1967, and 1968.

In addition, the writers have included a brief description of all who earned degrees from 1966 through 1969. This description will provide a basis for establishing that the respondent group is representative of the entire graduate group, and it will also show certain trends which appeared over this four-year period concerning the characteristics of graduates.

A number of illustrations are presented in the body of the report to highlight specific findings. In addition, extensive data tabulations are contained in an Appendix to this report. All tables to which references are made are contained in the Appendix.

Population of Graduates - 1966 Through 1969

Three characteristics of the entire group of graduates from 1966 through 1969 are examined briefly: the number of graduates each year, the proportions of males and females, and the curricular areas from which

they were graduated. The College attempts to provide comprehensive educational opportunities to men and women both for immediate career preparation and for transfer to senior colleges and universities. This description will provide some evidence which can be used for evaluating the progress of the College toward its goal of providing comprehensive educational opportunities.

From 1966 through 1969, 1114 students received associate degrees from H.A.C.C. Figure 1 illustrates separately for men and women the number of degrees granted by year of graduation. The rate of growth from year to year has been relatively steady, beginning with 168 graduates in 1966 and ending with 380 graduates in 1969. Overall, nearly two-thirds (64.5%) of the graduates were men and over one-third (35.5%) were women. The proportion of male and female graduates has changed somewhat over the years (Table 1). The number of male graduates increased proportionally from nearly six-tenths (58.3%) in 1966 to two-thirds (67.1%) in 1969. However, there is some reason to expect that the proportion of female graduates will rise in subsequent years; in fall 1969 the new student group was about equally composed of males and females.

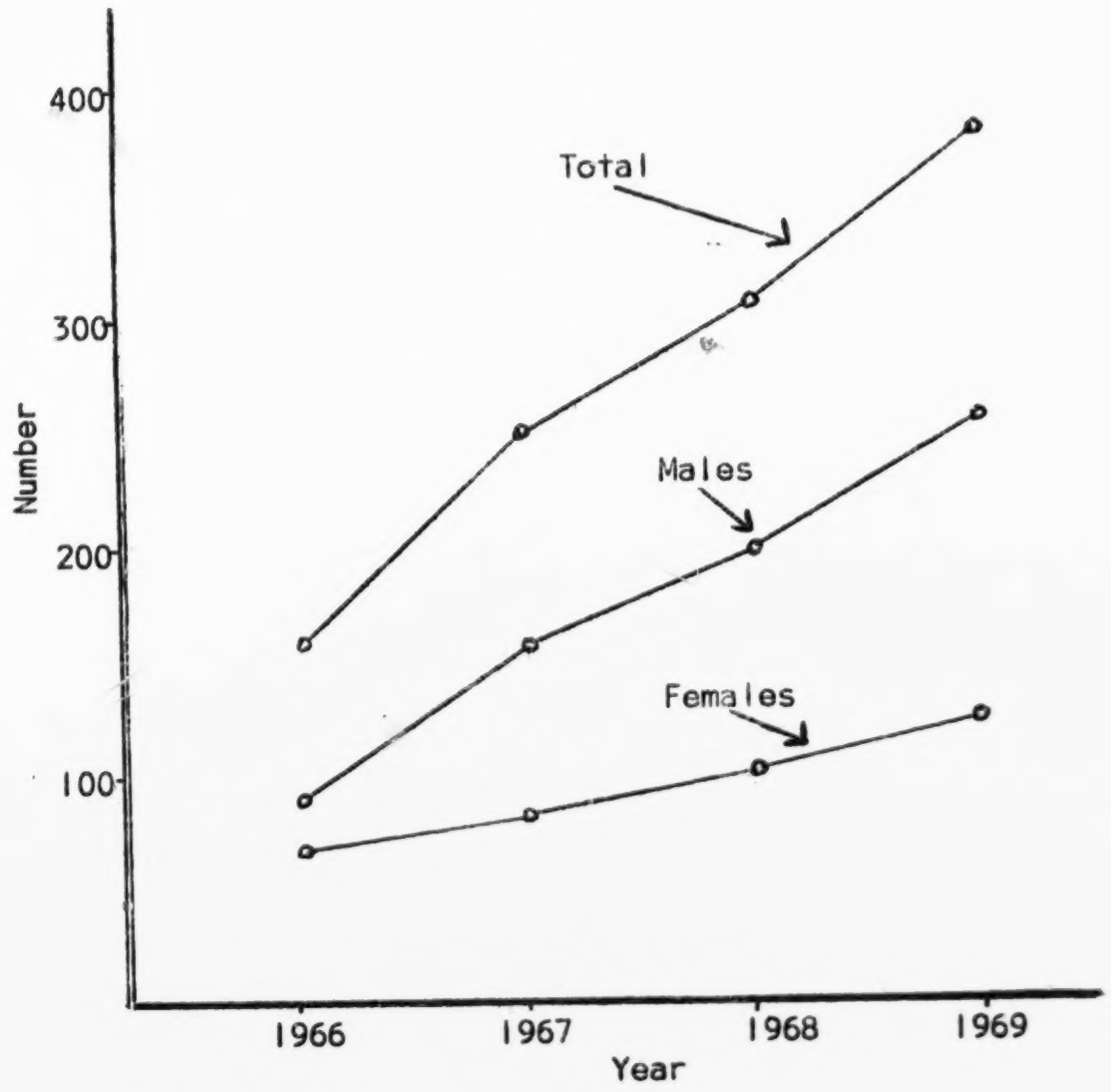

Figure 1. Number of Degrees Granted by Year of Graduation.

Table 2 contains data for the number of degrees granted by curricular areas and by year of graduation. In all, 835 degrees were granted in transfer programs and 277 in career programs. We must bear in mind that the "career - transfer" designation is sometimes illusory; in certain areas of study the distinctions are the result of students' educational intents rather than of differences in content of programs. Figure 2 shows the total numbers of graduates by curricular groups, in rank

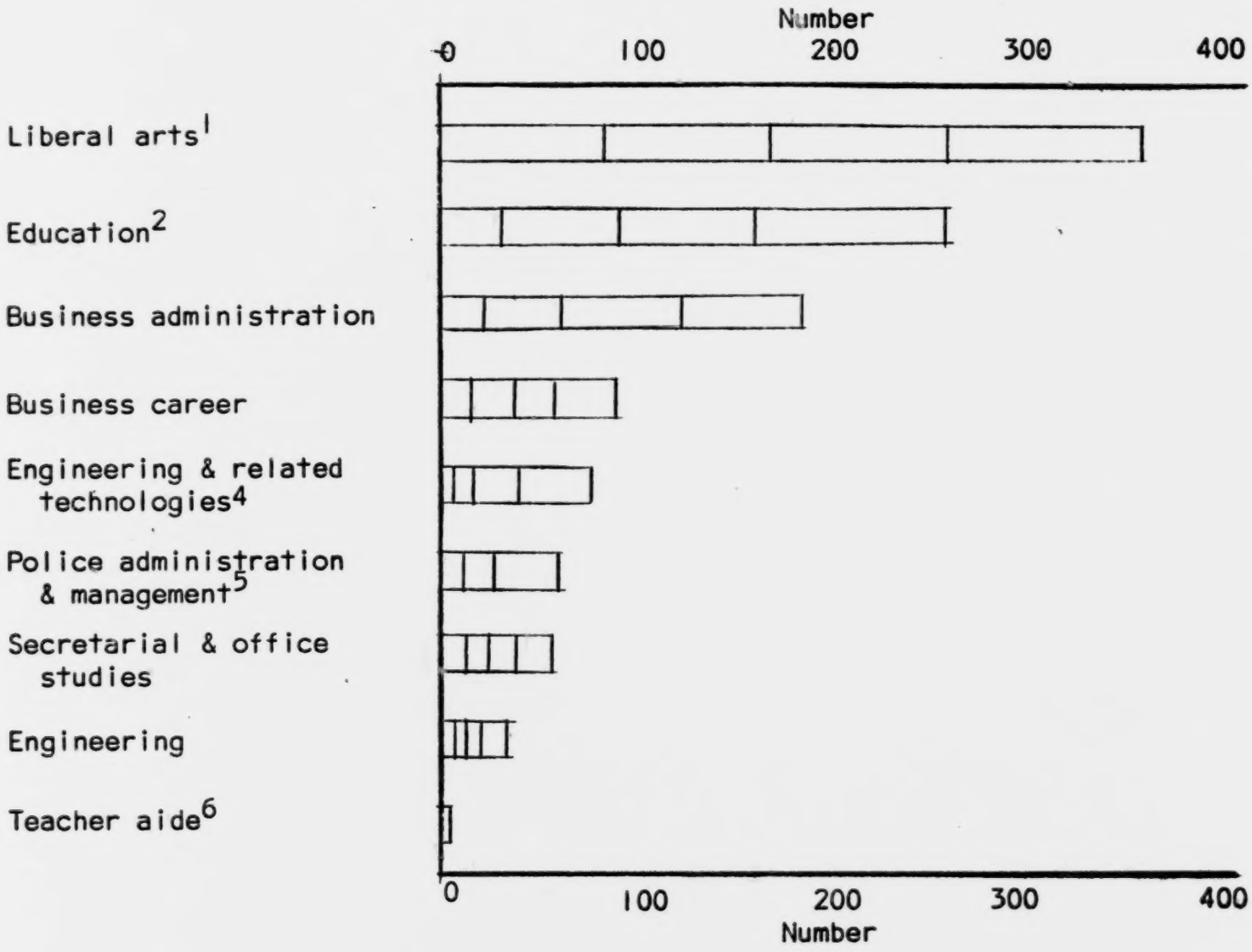

Figure 2. Number of Degrees Granted by Curricular Group and Year of Graduation[7]

1 Language arts, life sciences, math & science, social sciences
2 Elementary & secondary education
3 Accounting, business management, data processing, food services, retailing
4 Civil technology, drafting, electronics technology, electronics service & merchandising
5 Police management, police administration, public service. No graduates in 1966.
6 No graduates in 1966, 1967, and 1968.
7 Bars represent years, from left to right, 1966, 1967, 1968, 1969.

order. By far, the most graduates were in liberal arts (including language arts, life sciences, mathematics and physical sciences, and social sciences), education (including elementary and secondary education), and business administration. From 1968 to 1969, the greatest proportional growth in the number of graduates occurred in career curricula, education, and engineering.

Table 3 contains data for the proportions of career and transfer graduates for each year from 1966 through 1969. Overall, three-fourths (75.1%) of the graduates were from transfer areas. However, the proportion of career graduates is rising steadily, from a low of 17.3 percent in 1966 to a high of 30.5 percent in 1969. To illustrate the higher rate of increase in the number of career graduates, we can note that whereas the number of transfer graduates doubled from 1966 to 1969 (139 to 264) the number of career graduates increased four-fold during those years (from 29 to 116).

Source of Data

The primary source of data for this study was a questionnaire which was mailed during the spring of 1969 to each of the 734 graduates who received degrees during the period 1966 through 1968. Thus, all respondents had been graduated from H.A.C.C. from one to three years previously. Through extensive follow-up efforts, the number of undeliverable questionnaires was reduced to only 15. In addition, five deceased graduates were noted. In all, 522 questionnaires were received from the remaining population of 714 graduates, for a 73.1 percent response. Twenty-eight of the returned questionnaires could not be analysed because of incomplete responses. Thus, the data were taken from 494 usable questionnaires

which were received from 69.2 percent of the population of graduates to whom questionnaires could be delivered. Specific analyses of data will sometimes show a total of fewer than 494 respondents, as not all information was completed on each usable questionnaire.

Description of the Respondents

The respondent graduates are described according to sex, marital status, age, date of graduation from H.A.C.C., and the curriculum completed at H.A.C.C. The respondent group was representative of the entire graduate population by sex, date of graduation, and curriculum completed.

Demographic Description

Six-tenths (60.7%) of the graduate respondents were males and four-tenths (39.3%) were females (Table 4). Nearly two-thirds (64.3%) of the graduates were single at the time they completed the questionnaire (Table 5).

The graduate respondents were essentially a young population; the median ages for males and for females were 22.0 and 21.6, respectively. Over one-half of all respondents were age 22 or below. Eighty-five percent were age 24 or below at the time of this study (Table 6). Figure 3 shows the age distribution for male and female respondents. Female graduates as a group were younger than the males. However, at the upper range, more female graduates (6.2%) were age 30 or over. Thus, while a continually decreasing number of male graduates was found in each successively older age group, the pattern for females was dichotomous; largely, females were either age 24 or younger or they

were age 30 or older. Possibly, this age pattern for females reflects a significant extent of "second career" planning.

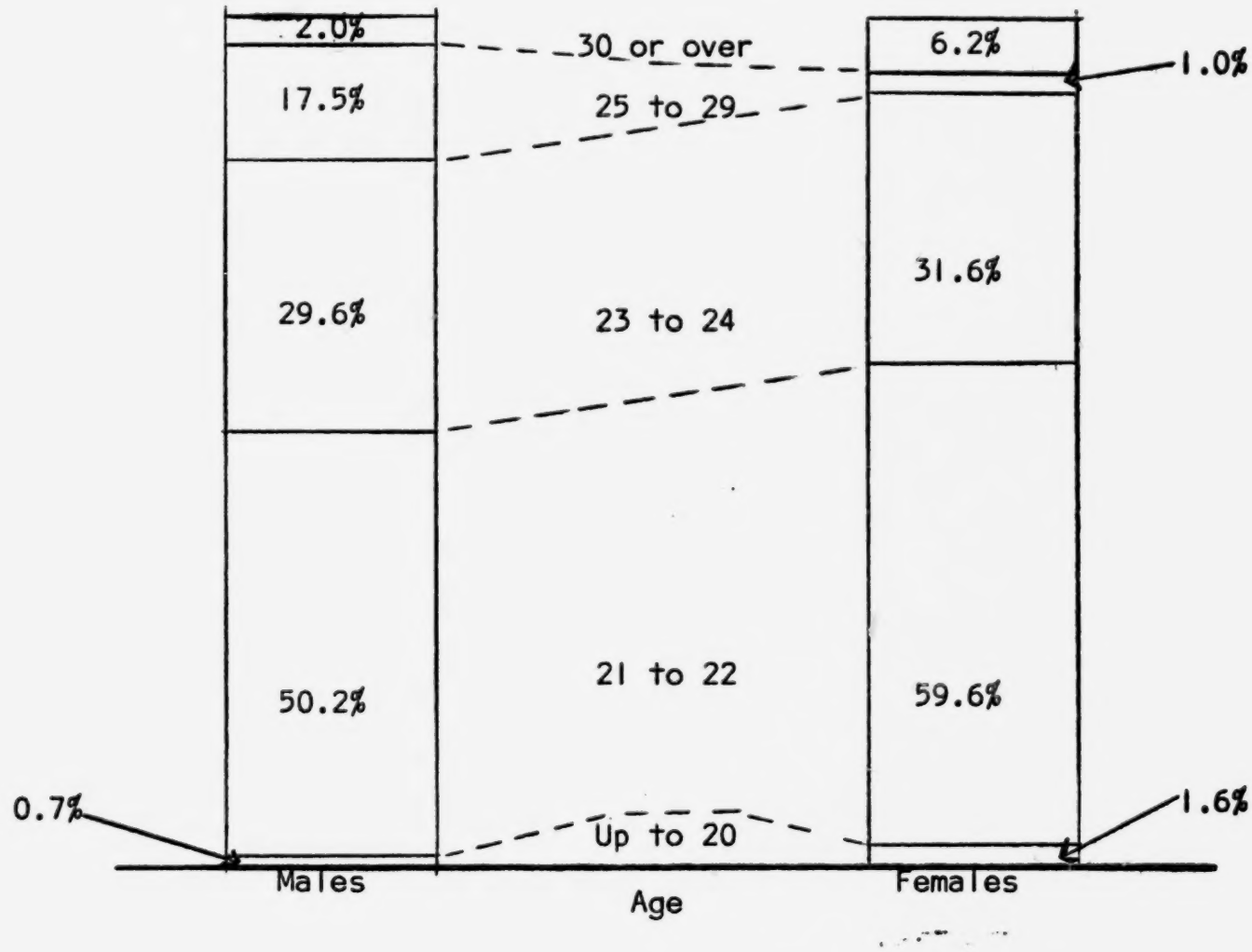

Figure 3. Age Distribution for Male and Female Graduate Respondents.

Table 7 compares the number and percent of graduate respondents and the population of graduates by each year of graduation. One-fourth (24.1%) of the respondents graduated in 1966, one-third (32.0%) graduated in 1967, and over four-tenths (42.6%) graduated in 1968.

Six of the respondents actually received their degrees in 1969, a result of their completing all requirements for graduation except for just one course by 1968.

Curricular Groups

Graduates were asked to indicate on a standard list the curriculum from which they were graduated at H.A.C.C. In all, 20 different curricula were reported (Table 8). These curricula were grouped to allow for subsequent analyses of data which are contained in this report. Table 9 and Figure 4 show the number of graduates during the 1966 - 1968 period and the corresponding number of respondents by various curricular groups. Each curricular respondent group represented from nearly six-tenths to over eight-tenths of its corresponding graduate population.

Table 10 contains the number of male and female graduate respondents from each of 12 curricular areas and shows the percentages of males and females separately in terms of the entire respondent groups. According to this study, there were proportionally more female graduates from career areas (44.2%) than from transfer areas (38.3%). Females composed a majority of the graduate respondents in secretarial and office studies, education, language arts, and social sciences. Males composed a majority of the graduate respondents in business administration, engineering, life sciences, mathematics and physical sciences, police and public service areas, business career areas, and engineering and related technologies.

Figure 5 illustrates the separate distributions of male and female respondents among the several curricular areas. The most popular curricular areas, in descending order of male respondents, were business administration (23.3%), education (15.5%), and mathematics and physical

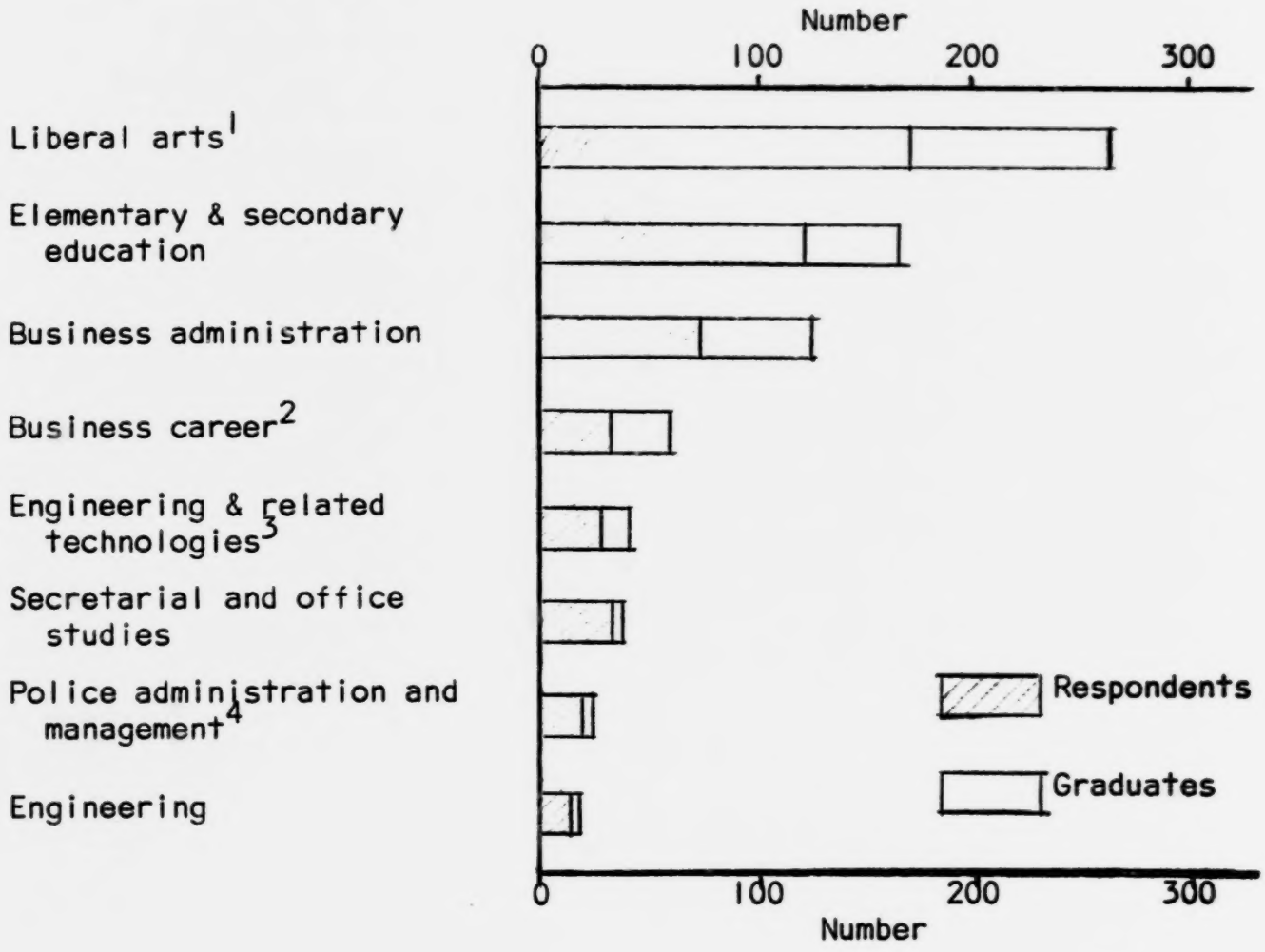

Figure 4. Number of Degrees Granted from 1966 to 1968 and Number of Respondents by Curricular Group

[1] Includes language arts, life sciences, math and sciences, and social sciences

[2] Includes accounting, business management, data processing, food services, retailing

[3] Includes civil technology, drafting, electronics technology, electronics service and merchandising

[4] Includes police management, police administration, and public service

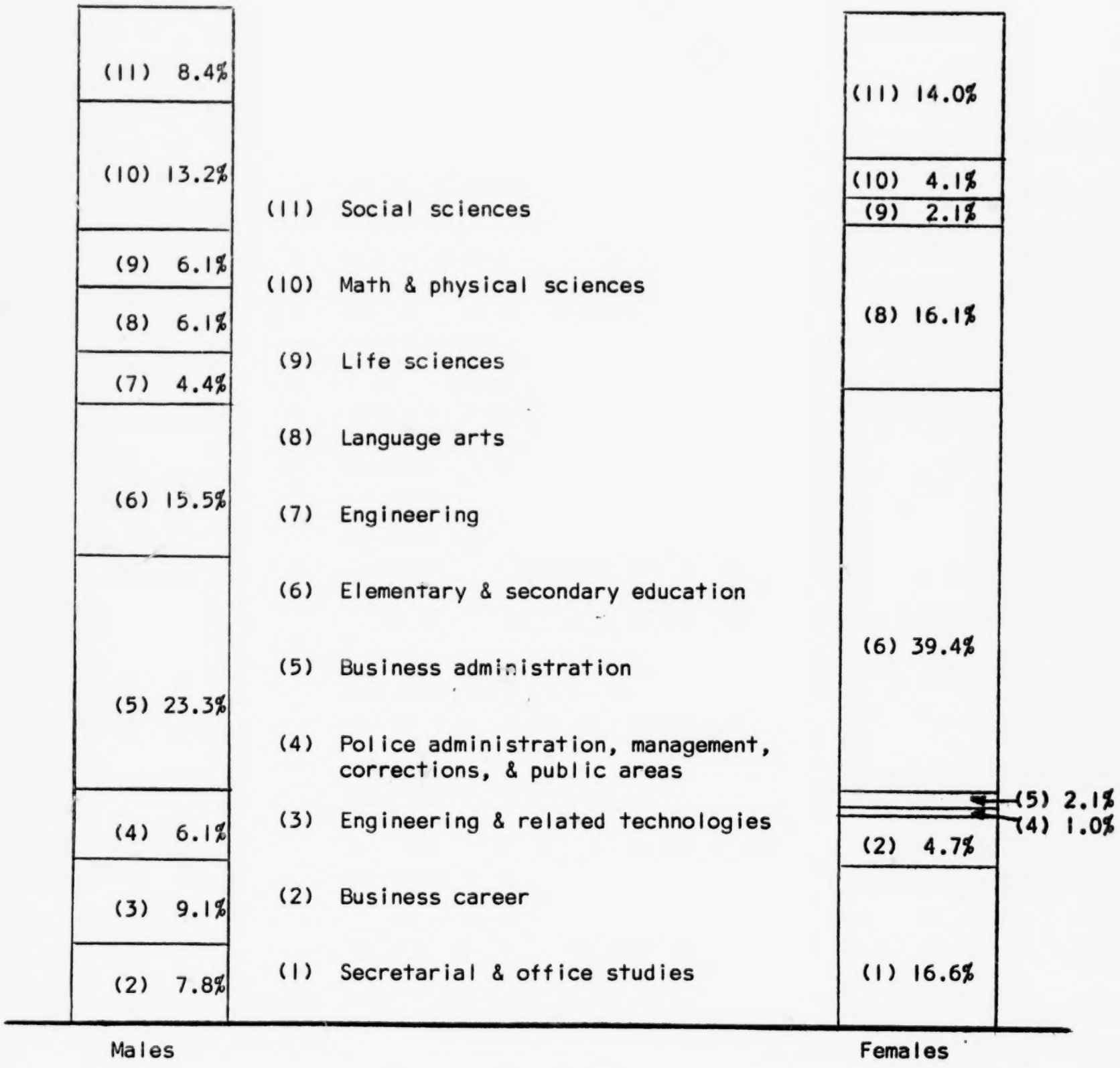

Figure 5. Distribution of Respondents by Curricular Group and by Sex, Percentages.

sciences (13.2%). Together, these three curricular areas accounted for just over half of the male respondents. The curricular areas with the greatest number of female graduates were education (39.4%), secretarial and office studies (16.6%), language arts (16.1%), and social sciences (14.0%). Together, these four curricular areas accounted for 86.1 percent of the female respondents. Thus, while male graduates are distributed broadly over ten of eleven curricular areas, female graduates are highly clustered in four areas.

Activities After Graduation From H.A.C.C.

In this section we examine the types of post-graduation activities reported by the respondents, including employment, continued education, and others. For employed students, job locations, job ratings, salaries, and congruence of job with the curriculum completed at H.A.C.C. are examined. The types of continued education and the levels of college achievement are examined for respondents who reported continued educational activities.

General Activities

During the spring of 1969, when this survey was completed, one-half (50.8%) of all graduate respondents were full-time students, one-third were employed full time (35.2%), less than one-tenth (7.1%) were in the military services, and 3.6 percent were housewives. The remainder (3.2%) reported themselves as being employed part time, as being part-time students, or as being involved in other unnamed activities (Table 11). It should be noted here that over 20 percent of the transfer graduates (including many of the 1966 graduates and even some of the 1967 graduates)

had already earned bachelor's degrees (Table 21), and they frequently reported themselves for this study as being employed full-time.

Figure 6 illustrates the post-graduation activities reported by males and females. Males reported themselves as full-time students more often than females. Females reported full-time employment more often than males. Over 11 percent of the males were in the military services, compared to less than one percent of the females. Nearly 10 percent of the females reported themselves as housewives.

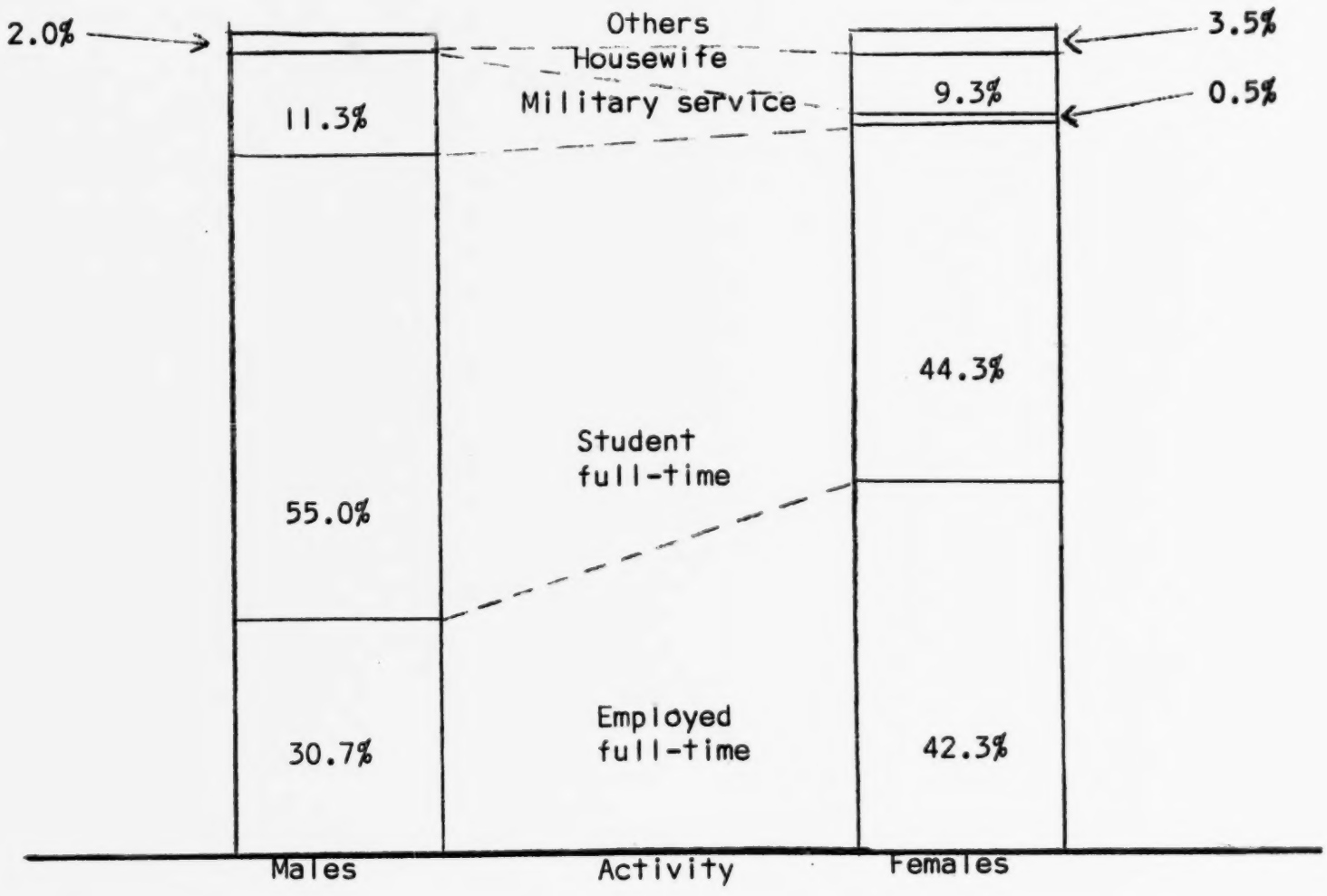

Figure 6. Activities of Graduate Respondents as Percentages of the Respective Male and Female Groups.

Table 12 and Figure 7 show information about the activities of career and transfer graduates. At the time of the study, the activities of career graduates were markedly different from the activities of those who graduated from transfer programs. Of the career graduates, two-thirds (63.1%) were employed full time, one-sixth (15.8%) were full-time students, and one-seventh (14.7%) were in the military services. Six-tenths (59.4%) of the transfer graduates were full-time students, three-tenths (28.4%) were employed full time, and 5.3 percent were in the military services.

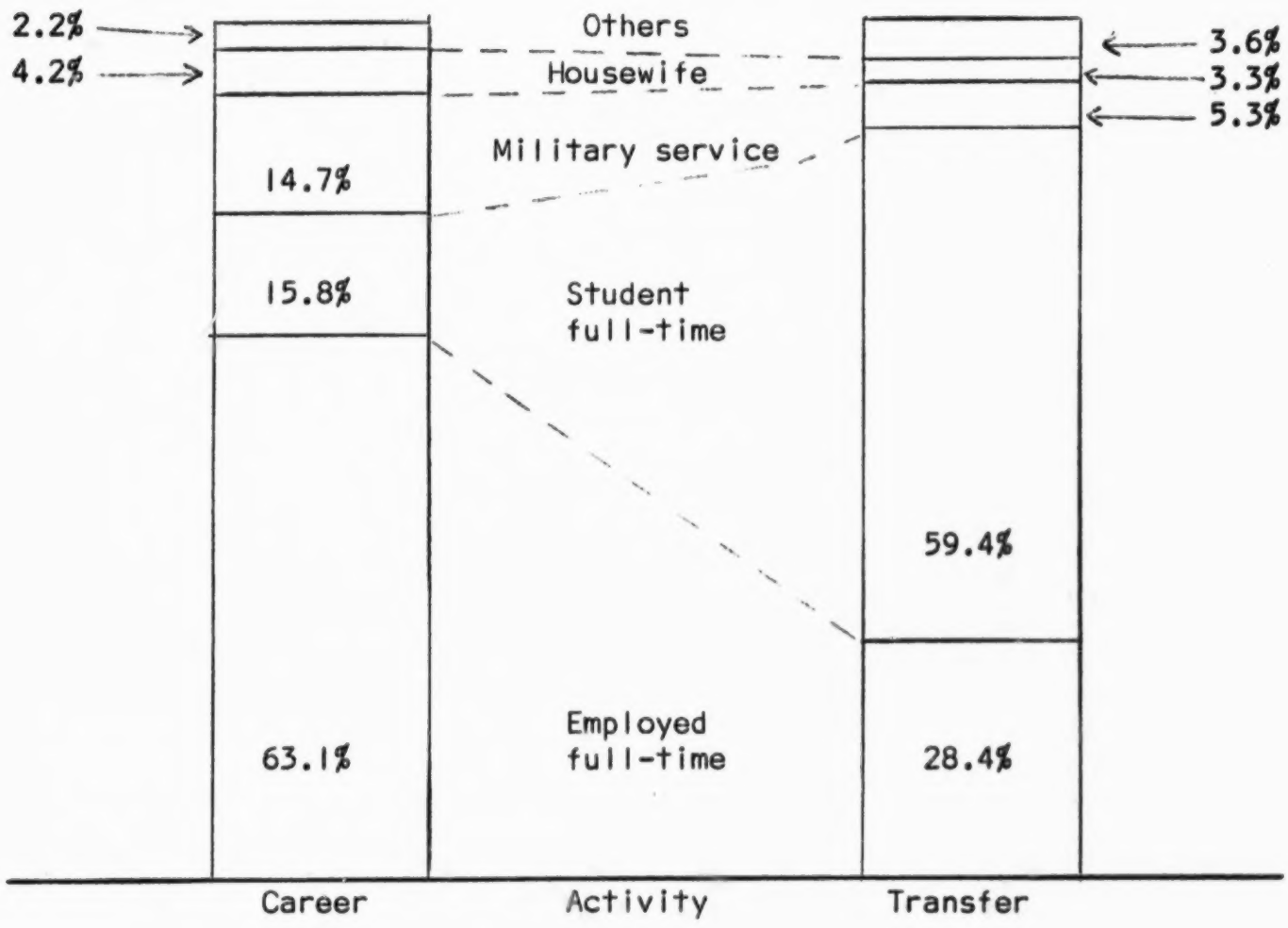

Figure 7. Activities of Graduate Respondents as Percentages of the Respective Career and Transfer Groups.

Table 13 contains information about the activities of respondents by curricular groups. As previously noted, most career graduates reported full-time employment and most transfer graduates reported that they were full-time students. Among career graduates, three-fourths (75.8%) of the graduates from secretarial programs were employed, followed by six-tenths (61.5%) of the engineering technology graduates and one-half (53.1%) of the business career graduates. One-fourth (25.0%) of the business career graduates were full-time students, followed by nearly one-fifth (15.4%) of the graduates from the technologies and less than one-tenth (6.1%) of the graduates from secretarial programs. Among transfer graduates, those in engineering (76.9%) and life sciences (77.3%) most frequently said that they were currently attending senior colleges.

Employment

Location. Table 14 contains information about the location of graduates' employment for their initial jobs and their current jobs, as follows: (1) in the Harrisburg tri-county area, (2) in Pennsylvania beyond the Harrisburg area, and (3) out of state. Two-thirds (67.2%) of the employed graduates were currently working in the tri-county Harrisburg area. Eight-tenths (80.5%) of the graduates were employed somewhere in Pennsylvania, including the Harrisburg area, and the remaining two-tenths (19.4%) were employed out of state. Based on the locations of respondents' initial jobs, there has been a very slight out-of-state migration on the part of H.A.C.C. graduates. The small amount of migration probably reflects the short period of time (from one to three years) for which the students had thus far been employed. Certainly, associate degree

graduates can be expected, as highly-trained technical and paraprofessional persons, to accept employment at locations increasingly distant from the central Pennsylvania area.

Congruence with education. Since graduates who studied in career programs did so, presumably, in preparation for careers in specific occupations, the College is interested in the extent of congruence between graduates' current jobs and their community college curricula. By comparing the job titles reported by respondents to the curriculums from which they graduated, the writers judged congruence as being consistent, inconsistent, or indeterminate. Using this judgmental approach, the career graduates were overwhelmingly (93.2%) employed in jobs which were consistent with their college preparation at H.A.C.C. (Table 15).

Salaries. Salaries earned by graduates at both their initial and current full-time employment are shown separately for males and females in Table 16. Median salaries for initial employment by males and females were $5799 and $4282, respectively. However, by spring 1969 the median current salaries for males and females had increased to $6793 and $5399. Current salaries earned by graduates employed full time are shown separately for males and females in Figure 8. The salaries for males are normally distributed, with a range from $4250 to over $10,000. For females the salary distribution is skewed downward, with a range from under $4000 to $8500.

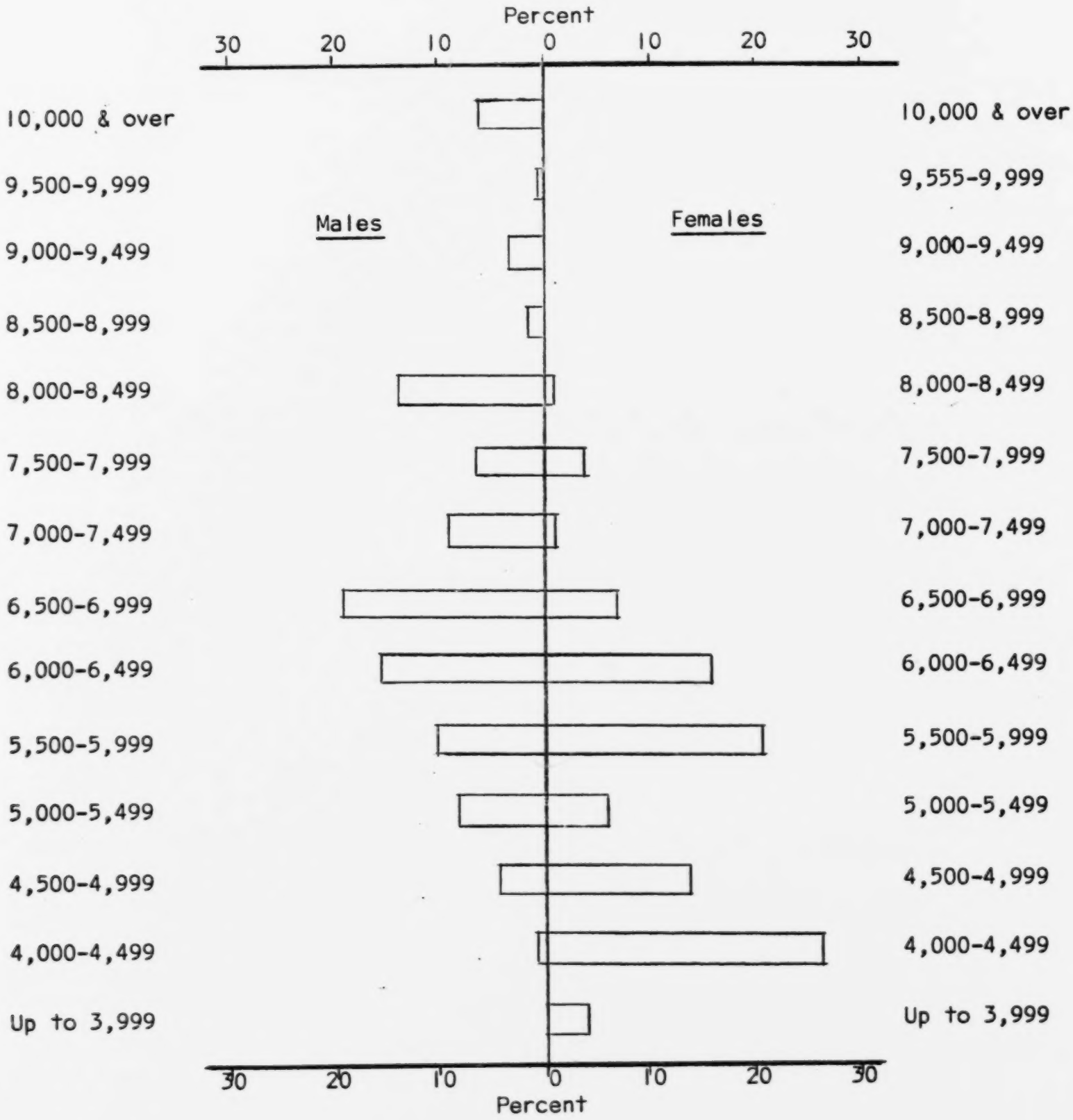

Figure 8. Current Salaries of Full-Time Employed Graduate Respondents as Percentages of the Respective Male and Female Groups.

Table 17 contains distributions of current salaries for separate curricular groups. Among career graduates, median salaries are highest for engineering technology graduates ($6915) and lowest for secretarial graduates ($4649). Two police graduates reported salaries which averaged $6999. To an extent, the low salaries earned by many secretarial graduates reflects their tendency to seek jobs in their immediate home areas and, perhaps, to place less emphasis than males on job and salary as sources of vocational satisfaction. Little discussion is offered here regarding salaries for transfer graduates, as only one-fourth of them were employed full time. Among transfer graduates, we can note median salaries of $7665 for business administration graduates, $6124 for education graduates, and $6269 for all transfer graduates who reported full-time earnings.

Job rating. The graduate respondents rated their satisfaction with their present jobs according to six characteristics: challenging work, interesting work, good relations with colleagues, salary, opportunity for advancement, and overall. They were asked to rate each of these characteristics as "superior," "good," "fair," and "poor." Figure 9 illustrates the ratings given to each of the six job characteristics separately by career and transfer graduates. Generally, career graduates and transfer graduates agreed in the ratings of their jobs, except that career graduates gave slightly higher ratings to "good relations," "salary," and "overall." "Good relations with colleagues" was given the highest rating by graduates; 97.1 and 93.3 percent of the respective career and transfer groups rated this aspect of their job as superior or good. Seventy percent or more of both groups rated their jobs as superior or good according to "interesting work," "challenging work," and "overall considerations." Both groups were less satisfied with

their salary and opportunity for advancement; only about one-half of the graduates rated these aspects as superior or good.

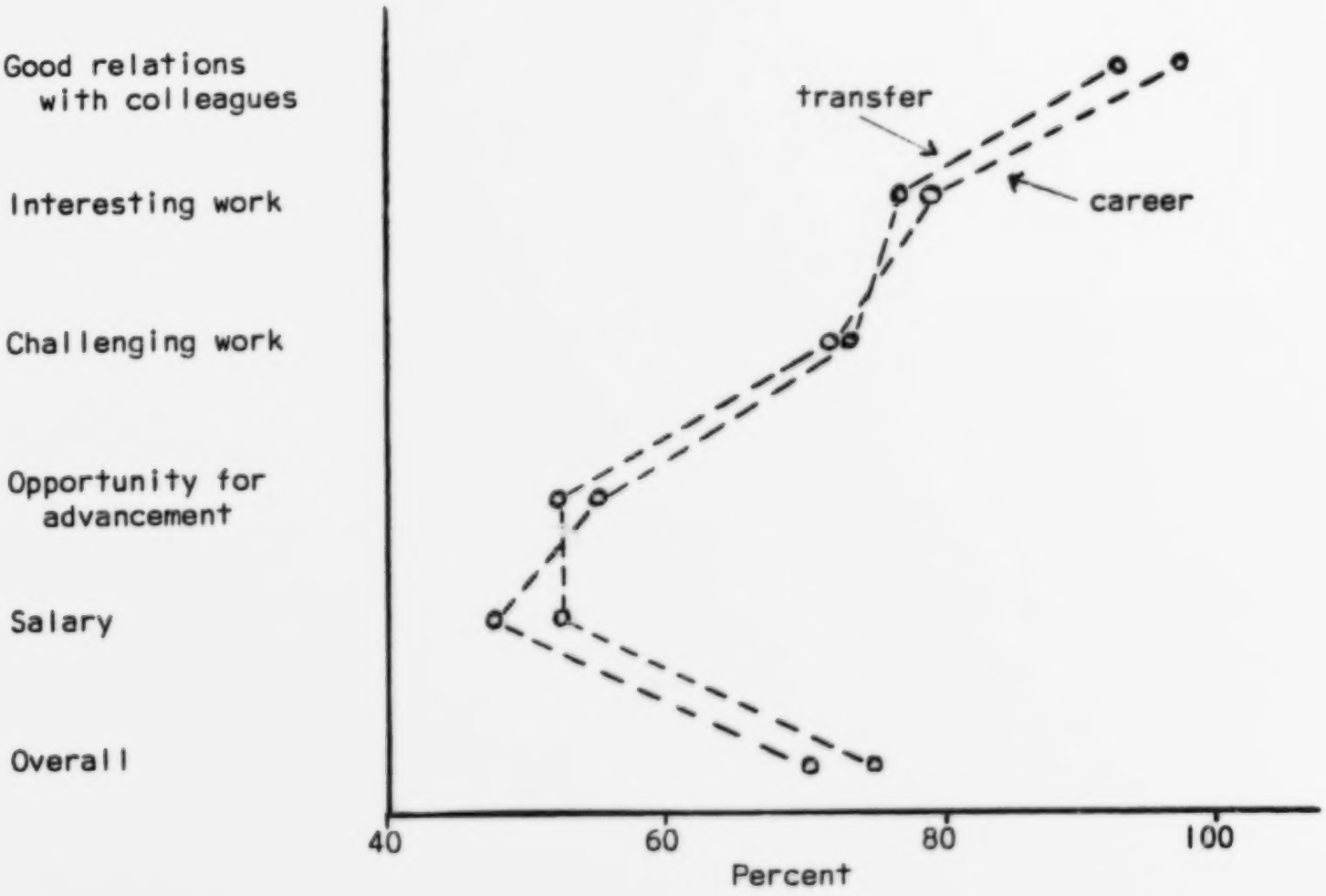

Figure 9. Job Satisfaction Ratings by Career and Transfer Graduates - Percentage Rating as Superior or Good.

Because of the different types of employment which probably exist for transfer graduates and career graduates, it would not be surprising if the two groups rated their jobs differently. (About 20 percent of the transfer graduates had already earned bachelor's degrees.) There was more variation in job ratings among career groups than among

transfer groups (Table 18). Several of the wider variations will be noted.

Overall, secretarial and office studies graduates gave higher ratings to their jobs than did other career graduates. They rated their jobs as more challenging, their salaries as more satisfactory, and they rated their jobs more highly overall.

The ratings of jobs by transfer graduates from specific curricular areas are occasionally unreliable because of the small numbers of these graduates who were employed. Less than 10 graduates supplied job-rating data in three of the eight transfer curricular groups. Overall, there was little variation in expressed satisfaction of their jobs among graduates from various transfer areas. Among transfer graduates, police administration graduates (N = 7) rated their jobs as far more challenging and interesting than did the other transfer graduates. Business administration students rated their salaries as more satisfactory than other transfer graduates. Business administration and police administration graduates rated their opportunity for advancement as more satisfactory than did the other transfer graduates.

Continued Educational Activities

All respondents were asked to indicate what types of educational activities they had been engaged in since their graduation from H.A.C.C. They were asked to indicate their activities according to the following list, shown in descending order of priority as established by the writers: four-year college or university, employer-training program, trade or business school, other, or none. When more than one type of activity was checked, only the type of activity to which highest priority was

assigned was recorded for analyses.

Table 19 contains data about continued educational activities of respondents, separately for males and females. Nearly three-fourths (72.5%) of all respondents attended a four-year college or university either full time or part time. Just over one-tenth (12.4%) of the respondents reported that they participated in no type of educational activity since their graduation from H.A.C.C. Males more than females participated in some type of education following their graduation. Over three-fourths (76.9%) of the males and nearly two-thirds (65.9%) of the females reported attendance at a four-year college or university. Less than 10 percent (7.8%) of the males reported no type of educational activity, as compared to two-tenths (19.8%) of the females. Thus, the males tended to continue their educational activities beyond the community college to a greater extent than did females.

Expectedly, graduates from transfer programs tended to continue their education to a much greater extent than did career graduates (Table 20). Over eight-tenths (83.7%) of the transfer graduates reported that they continued their education at a four-year college or university, while only six percent reported no educational activities since receiving their associate degrees. Comparatively, one-fourth (24.4%) of the graduates from career programs attended a four-year college or university and two-fifths (39.5%) reported no type of educational activity after receiving their associate degrees. However, there was a much greater tendency for career graduates to report non-collegiate type of training or education; over one-third (36.1%) reported participating in employer-training programs or some other type of continued education.

Certain differences in the patterns of educational activities among curricular groups are notable. All of the pre-engineering respondents (13 persons) attended a four-year college or university, and at the lower extreme, just seven-tenths (71.4%) of the language arts graduates attended a four-year college. Also, language arts graduates tended more than other transfer graduates to report no type of continuing education (14.3%) after receiving their associate degrees. Among career graduates, business students reported the greatest extent of continued college attendance (38.7%), while secretarial graduates reported the least attendance (8.0%). Over one-fifth of the graduates in engineering and related technologies and in business areas reported participating in employer-training programs. Thus, employer-training programs appear to be a significant means of continuing job-related training and education for certain career graduates.

Level of College Achievement

Respondents were asked to indicate their levels of achievement at four-year colleges or universities as follows: now studying for bachelor's degree, expect bachelor's degree this year, received bachelor's degree, enrolled in full-time graduate study, or enrolled in part-time graduate study. These data are shown separately for career and transfer respondents in Table 21.

As previously noted, eight-tenths of the transfer graduates and about one-fourth of the career graduates continued their education at senior colleges or universities. In comparing the achievements of graduates from transfer programs to those from career programs, we

note that over one-third (36.0%) of the transfer graduates either expected to receive their bachelor's degrees in 1969 or have already received the degrees, while just four percent of the career graduates reported that level of achievement. Five percent of the transfer graduates reported either full-time or part-time enrollment in graduate study.

A further analysis of the level of achievement by transfer graduates according to curricular groups at H.A.C.C. is contained in Table 22. These data are related to those previously reported concerning types of continued educational activities (Table 20), and the results of the two analyses are highly comparable. The data in Table 22 show that pre-engineering graduates most frequently reported present or past attendance at a four-year college (92.3%). Other groups, listed in the order of continued college attendance, included life sciences (86.4%), elementary and secondary education (85.2%), social sciences (82.7%), business administration (78.1%), mathematics and physical sciences (76.6%), language arts (76.5%), and police administration (62.5%). When we examine the proportions of graduates who have already received bachelor's degrees, we find that elementary and secondary education graduates rank first (31.9%), followed by graduates in the social sciences (24.3%), language arts (20.4%), life sciences (18.2%), business administration (16.4%), mathematics and physical sciences (14.9%), engineering (15.4%), and police administration (12.5%). It appears that associate degree graduates in engineering and in mathematics and physical sciences require more time to complete their bachelor's degrees, while those in education and social sciences complete their bachelor's degrees more readily within a two-year period.

Evaluations of the College

In this section we present and examine the attitudes of graduates toward a number of features of their college experience at H.A.C.C., including general subjects, technical or professional subjects, and several other aspects of the educational program. Graduates were also asked if they would recommend the College to prospective students. The nature of the questions asked of graduates and the patterns of their responses are discussed in the comments which follow.

General Subjects

Graduates were asked to rate general subjects as "highly beneficial," "desirable, but not essential," or "of little or no value." They were instructed to rate only those subject areas in which they completed two or more courses. The ratings of general subjects as "highly beneficial" are shown separately for career and transfer graduates in Figure 10. Major differences were found between the ratings by career graduates and by transfer graduates on four of seven general subjects. Career graduates rated mathematics and physical sciences much higher in importance than did transfer graduates. Transfer graduates rated social and behavioral sciences and the humanities higher than did career graduates. Humanities were rated very low by career graduates.

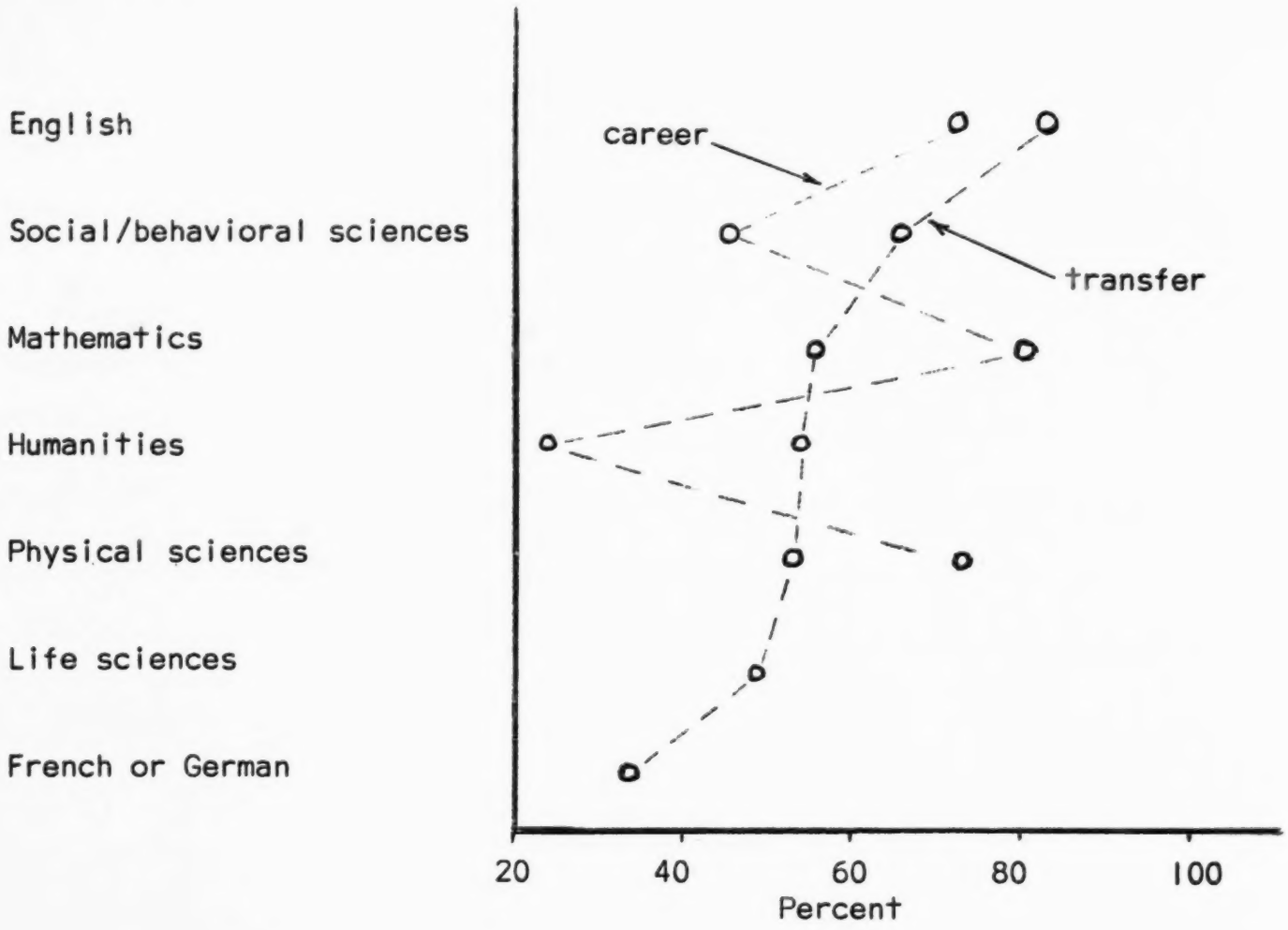

Figure 10. Percentage Ratings of General Subjects as Highly Beneficial by Career and Transfer Graduates.

There were some notable differences in the ratings of general subjects by specific curricular groups (Table 23). Among career graduates, those from engineering and related technology curricula rated mathematics and physical sciences higher, and English lower, than did other career graduates. Among transfer graduates, those subjects which were related most closely to a given group's curricular areas were rated highest by graduates from that curricular area.

It is valid to question whether the seven general subjects are indeed subjects which apply to the educational programs of all students.

To a considerable extent, these subjects are designed for special interest groups, rather than for the general education of students. Also, in many instances students who "major" or concentrate in a given curricular area are not presented with the same subject matter when they take a course in areas such as mathematics, physical sciences, social and behavioral sciences, etc. That is to say, for example, that different mathematics concepts may be taught to social science majors than to technology students.

Technical or Professional Subjects

Respondents were asked to rate certain technical or professional subjects in which they completed two or more courses as "highly beneficial," "desirable but not essential," or "little or no value." The ratings of technical or professional subjects by selected curricular groups are shown in Figure II and Table 24. Analyses of subject ratings were limited to those student groups for whom a subject was mandatory in order to complete their degrees. For example, only graduates in business career areas, secretarial areas, and business transfer areas were included in the rating summaries for business subjects. It is important to remember that the graduate was not rating how well courses were conducted, but, rather, how beneficial they were to him.

Generally, subjects were rated as highly beneficial by more than eighty percent of the graduates whose ratings were considered. Several exceptions were found, however. Ratings of highly beneficial by fewer than 70 percent of the group were given to accounting by business career graduates (23.3%) and by secretarial graduates (29.6%); to data processing by business career graduates (45.5%) and by business transfer graduates

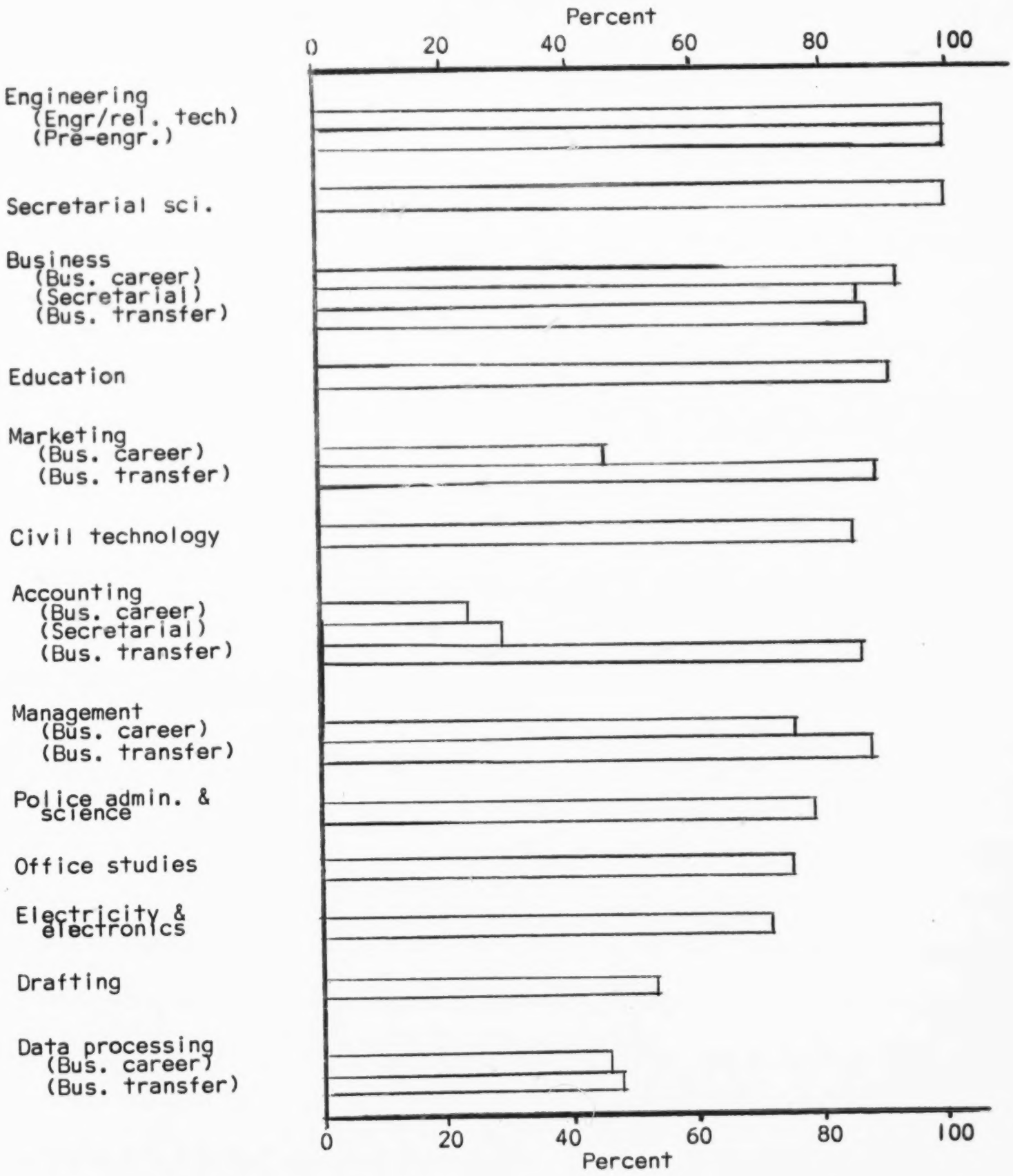

Figure 11. Percentage Ratings of Technical or Professional Subjects as Highly Beneficial by Graduates from Selected Curricular Groups.

(47.4%); to drafting by engineering technology graduates (52.7%); and to marketing by business career graduates (64.7%).

The meaning of these data cannot be interpreted readily, but they should be considered in the specific context of the curriculum and the occupational activities in which graduates are engaged. Comparable rating data from current students and from former students who did not receive associate degrees from the College may be valuable for curricular evaluation.

Aspects of the Educational Program

Respondents rated six aspects of the educational program as "superior," "good," "fair," "poor," and "cannot rate." These aspects included: courses, instruction, academic advisement, advisement in employment or transfer, personal counseling, and student activities. The ratings by career and by transfer graduates are shown separately in Figure 12.

Career graduates gave higher ratings to each of the six aspects than did transfer graduates. Graduates from career and transfer curricula agreed closely in their ratings of courses, instruction, and student activities, but they differed in their ratings of the other aspects. Over nine-tenths of the career graduates (98.9%) and the transfer graduates (93.6%) rated courses as superior or good, and nearly nine-tenths of the graduates from both groups rated instruction as superior or good. The remaining aspects of the educational program were rated considerably lower. Career graduates rated the three counseling and advisement aspects considerably higher than did transfer graduates. Six-tenths of the career graduates rated academic advisement and personal

counseling as superior or good, but only four-tenths of the transfer graduates rated them as superior or good. Advisement in employment or transfer was rated as superior or good by one-half of the career graduates and by under four-tenths of the transfer graduates. Student activities were rated as superior or good by just over four-tenths of the career and transfer graduates.

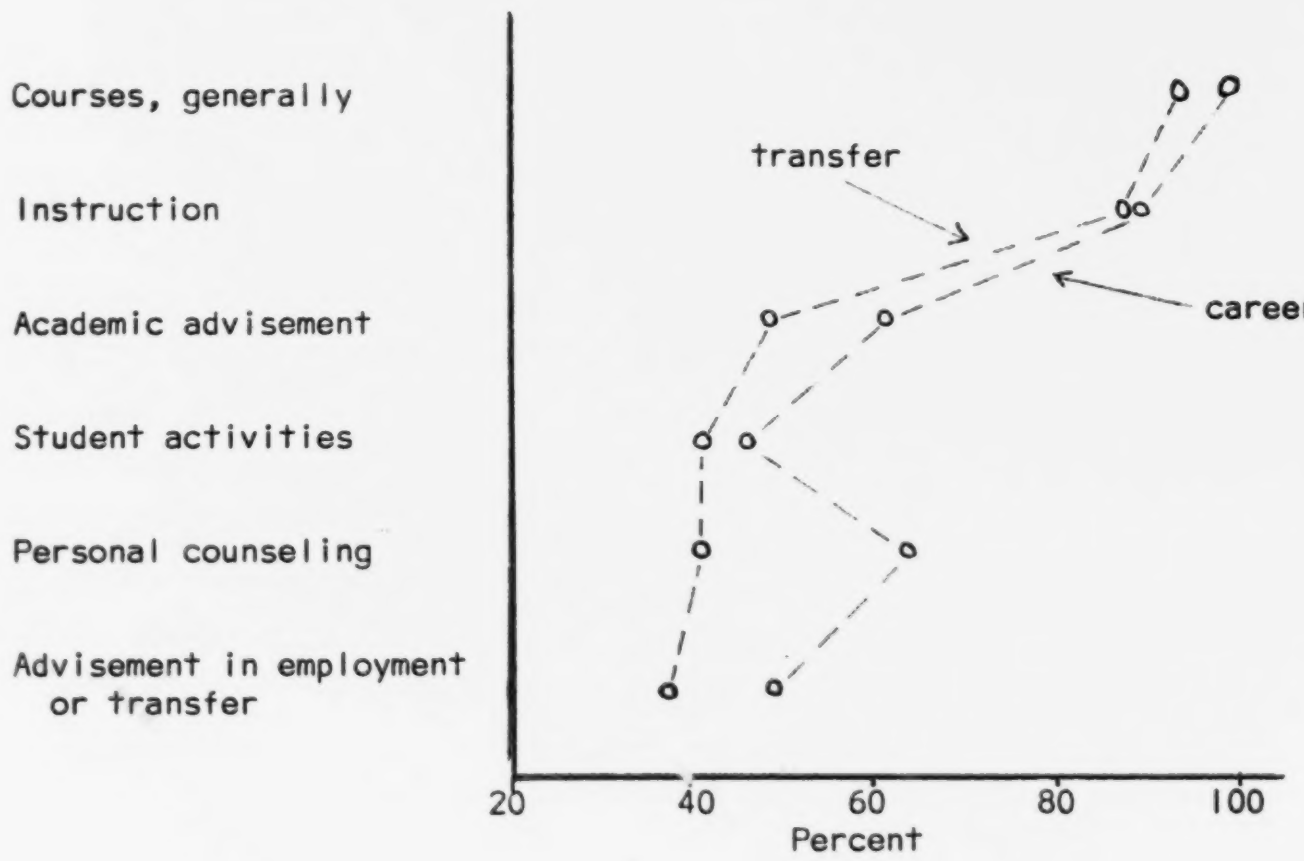

Figure 12. Percentage Ratings of Aspects of the Educational Program as Superior or Good by Career and Transfer Groups.

Several differences in the ratings by graduates from different curricular groups are notable (Table 25). Graduates from the secretarial program rated all aspects of the educational program higher than did other career graduates. This is particularly true for advisement in employment or transfer, personal counseling, and student activities. Among career graduates, business career graduates rated advisement in employment or transfer lowest. Engineering technology graduates rated student activities lowest among career graduates.

Among transfer graduates the pre-engineering and police administration respondents rated academic advisement and personal counseling considerably higher than did other graduates. Language arts respondents rated advisement in employment or transfer higher, and graduates from mathematics and physical sciences rated this aspect lower than did other transfer graduates. Pre-engineering graduates rated student activities as extremely low.

We need to bear in mind that the meanings attached by respondents to the several program aspects may be highly subjective. For example, we assume that career students need advisement largely for purposes of employment, and transfer students need advisement largely for transferring to senior institutions. Also, academic advisement is more crucial generally for transfer students than for career students (whose curricula are more wholly prescribed).

Education as Preparation for Jobs or Continued Education

Graduates were asked to rate their education at H.A.C.C. as preparation for four aspects of subsequent employment or educational activities. These aspects were listed as technical knowledge and understanding, job or

learning skills, interpersonal relations, and self-understanding. Respondents could rate each factor as "superior," "good," "fair, or "poor." The ratings of these factors by career graduates and transfer graduates as "superior" or "good" are shown separately in Figure 13.

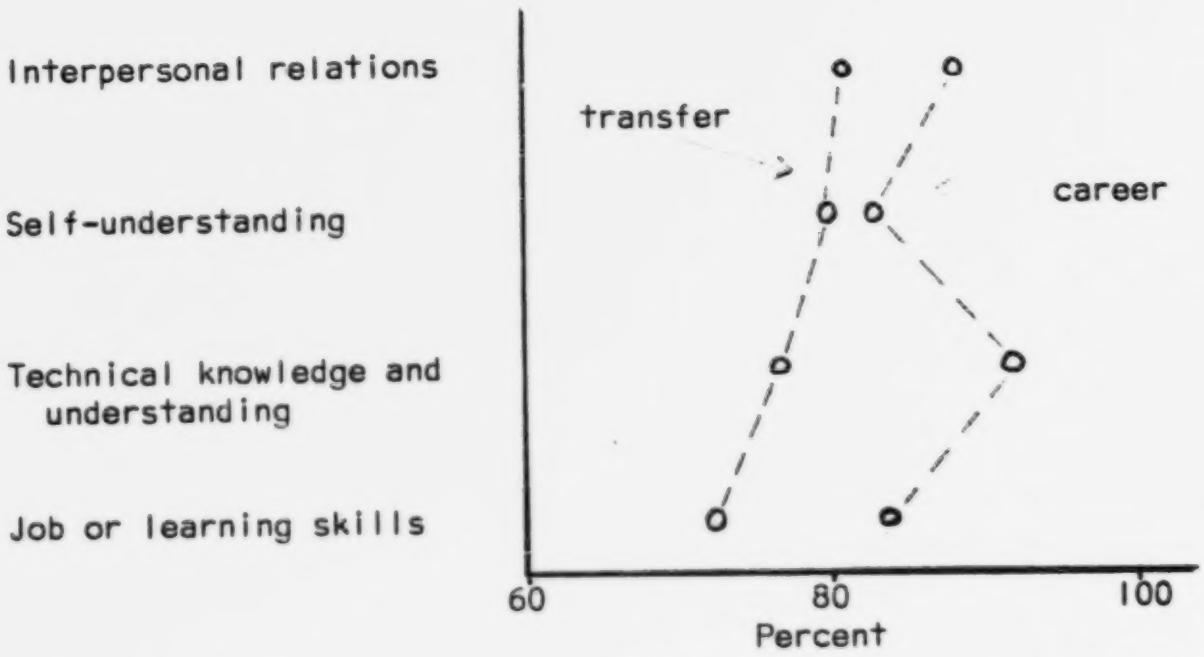

Figure 13. Percentage Ratings of H.A.C.C. Education as Preparation for Job or Transfer as Superior or Good by Career and Transfer Groups.

The ratings are generally favorable, and career graduates gave more favorable ratings than did transfer graduates. Over nine-tenths of the career graduates rated technical knowledge and understanding as superior or good, and the other three factors--job or learning skills, interpersonal relations, and self-understanding--were rated as superior or good by over eight-tenths of the career graduates. The ratings as superior or

good by transfer graduates contained even less variance and ranged from a low of over seven-tenths to a high of eight-tenths. The small variation in the ratings of the four factors by both career and transfer graduates suggests that respondents might have "generalized" in their ratings.

The ratings by specific curricular groups are shown in Table 26. The engineering and related technology graduates gave lower ratings than other career graduates to three of the four factors--job or learning skills, interpersonal relations, and self-understanding. Most of the variance among ratings by transfer curricular groups was caused by the responses of the pre-engineering graduates. They rated their technical knowledge and understanding considerably higher and they rated their job or learning skills as somewhat higher than other transfer graduates. However, they rated interpersonal relations and self-understanding much lower than did other transfer graduates.

It is notable that of all graduates the engineering and related technology graduates and the pre-engineering graduates both rated their education at H.A.C.C. as weakest for preparation for interpersonal relations and for self-understanding. What are the implications of these data?

Recommendation of H.A.C.C.

More than nine-tenths (91.9%) of the graduate respondents answered "yes" to the question"Would you recommend H.A.C.C. to a person seeking to complete the same program you studied?" Table 27 contains the recommendations of respondents according to a number of personal and academic characteristics. Graduates in 1967 and 1968 responded more favorably than 1966 graduates. Career students recommended the College more favorably than did transfer students. Among curricular groups,

business administration graduates (97.2%) and secretarial graduates (100.0%) were most positive in their recommendations. Differences in age, sex, and marital status of respondents did not affect their recommendations.

As a measure of graduates' interest in the College, it is worth noting that 95.5 percent of the respondents indicated that they would like to receive a summary of the report from this study.

Summary and Implications

During the four years from 1966 through 1969, 1114 students received associate degrees from H.A.C.C., the number increasing each year. The proportion of male graduates increased from nearly six-tenths in 1966 to two-thirds in 1969. Overall, three-fourths of the graduates were from transfer programs, but the proportion of career graduates is rising steadily, from 17.3 percent in 1966 to 30.5 percent in 1969.

Data for this study were obtained from a questionnaire, copies of which were mailed to each of 734 graduates who received their associate degrees from H.A.C.C. during the period from 1966 through 1968. Usable responses were received from 494 graduates, or 69.2 percent of those graduates who received questionnaires. The respondent group was representative of the entire graduate population by sex, date of graduation, and curriculum completed. Several characteristics of the respondent graduates are noted, as follows:

1. Six-tenths of the respondents were males.
2. Two-thirds were single at the time they completed the questionnaire.

3. The average age was 22 years. Eighty-five percent were age 24 or below, but a notable number of female graduates were age 30 or over.

Regarding their activities following H.A.C.C., one-half of all graduates reported full-time college study and one-third were employed full time. Over one-tenth of the males were in military services and nearly one-tenth of the females reported themselves as housewives. Expectedly, career graduates tended to report full-time employment, and transfer graduates tended to report a full-time student status. Two-thirds of the graduates who were employed reported their employment as being in the Harrisburg tri-county area. Career graduates were overwhelmingly employed in jobs consistent with their area of college preparation at H.A.C.C. Male graduates reported higher average salaries ($6793) than females ($5398). Overall, about three-fourths of the employed graduates rated their jobs as superior or good.

Three-fourths of the respondent graduates reported attendance at four-year colleges or universities either full time or part time. Over eight-tenths of the transfer graduates and one-fourth of the career graduates attended four-year colleges or universities. Also, over one-third of the career graduates reported participating in employer-training programs. Males continued their education more than did females. Over one-third of the transfer graduates had either completed their bachelor's degrees or expected to receive them in 1969. Five percent of the transfer graduates were enrolled in graduate study.

In their ratings of general subjects at H.A.C.C., major differences between career and transfer graduates were found. Transfer graduates

rated social and behavioral sciences and humanities higher than did career graduates. Career graduates rated mathematics and physical sciences much higher than did transfer graduates. Specialized technical subjects were generally rated as highly beneficial by over eight-tenths of selected curricular groups, but some lower ratings were noted.

In rating several aspects of the educational program at H.A.C.C., career graduates were more favorable than transfer graduates. Courses and instruction were rated as superior or good by over 90 percent of all graduates, and counseling, advisement, and student activities were rated considerably lower. Respondents were asked to rate their education at H.A.C.C. as preparation for jobs or continued education in terms of four factors: technical knowledge and understanding, job or learning skills, interpersonal relations, and self-understanding. Graduates' ratings were generally favorable but ratings by career graduates were most favorable.

Ninety-two percent of the graduate respondents answered "yes" to the question "Would you recommend H.A.C.C. to a person seeking to complete the same program you studied?" Over ninety-five percent of the respondents indicated they wanted a summary of the report from this study.

The results of this study provide the first "profile" of H.A.C.C. graduates. This report also provides information which will support other more specific investigations of graduates, for example, studies of achievement in continued educational activities and in-depth studies of employment patterns and needs. Also, data from this study can be compared

with those from companion studies of current students and non-persisting former students. Such comparisons may provide insights as to student achievements (and non-achievements) and student changes. Taken together, these descriptive studies may enhance the development of a list of propositions about student achievements and educational programs.

APPENDIX

TABLE I
DEGREES GRANTED BY YEAR OF GRADUATION AND SEX

Year	Males N	Males %*	Females N	Females %*	Total N	Total %
1966	98	58.3	70	41.7	168	15.1
1967	165	64.0	93	36.0	258	23.2
1968	200	64.9	108	35.1	308	27.6
1969	255	67.1	125	32.9	380	34.1
Total	718	64.5	396	35.5	1114	100.0

* Percent of males and females, separately for each year and for the total of the four years.

TABLE 2
DEGREES GRANTED BY CURRICULAR AREAS

Curriculum[1]	Year of Graduation 1966	1967	1968	1969	Total N	%
Career						
Secretarial & office studies	11	11	16	15	53	4.8
Business career	14	23	21	31	89	8.0
Engineering & related technologies	4	14	22	36	76	6.8
Police administration & management	0	7	18	33	58	5.2
Teacher aide	0	0	0	1	1	0.1
Total career	29	55	77	116	277	24.9
Transfer						
Business administration	24	41	60	59	184	16.5
Elementary & secondary education	30	67	66	102	265	23.8
Engineering	3	4	9	16	32	2.9
Liberal arts[2]	82	91	94	87	354	31.8
Total transfer	139	203	229	264	835	75.1
Grand total	168	258	306	380	1112	100.0

1 Although these curricula are listed as transfer or career, there are sometimes only minor distinctions between the two.
2 Includes life sciences, communications and the arts, math and physical science, and social science.

TABLE 3
NUMBER AND PERCENT OF CAREER AND TRANSFER GRADUATES
FROM 1966 THROUGH 1969

Year	Career N	Career %*	Transfer N	Transfer %*	Total N	Total %
1966	29	17.3	139	82.7	168	15.1
1967	55	21.3	203	78.7	258	23.2
1968	77	25.2	229	74.8	306	27.5
1969	116	30.5	264	69.5	380	34.2
Total	277	24.9	835	75.1	1112	100.0

* Percent of career and transfer graduates, separately for each year and for the total of four years.

TABLE 4
SEX OF RESPONDENT GRADUATES

Sex	N	%
Male	300	60.7
Female	194	39.3
Total	494	100.0

TABLE 5
MARITAL STATUS OF RESPONDENT GRADUATES

	Male		Female		Total	
	N	%	N	%	N	%
Single	188	63.9	124	64.9	312	64.3
Married	102	34.7	65	33.5	166	34.2
Other	4	1.4	3	1.6	7	1.4
Total	294	100.0	191	100.0	485	100.0

TABLE 6
AGE OF RESPONDENT GRADUATES
(AS OF DECEMBER 31, 1969)

	Male		Female		Total	
Age	N	%	N	%	N	%
Up to 20	2	.7	3	1.6	5	1.0
21 to 22	149	50.2	115	59.6	264	53.9
23 to 24	88	29.6	61	31.6	149	30.4
25 to 29	52	17.5	2	1.0	54	11.0
30 or over	6	2.0	12	6.2	18	3.7
Total	297	100.0	193	100.0	490	100.0
Median	22.0		21.6		21.8	

TABLE 7
COMPARISON OF THE NUMBER AND PERCENT OF RESPONDENTS AND GRADUATES BY YEAR OF GRADUATION

Year	Respondents N	Respondents %	Graduates N	Graduates %	Respondents as % of Grads
1966	119	24.1	168	22.9	70.8
1967	158	32.0	258	35.1	61.2
1968	210	42.6	308	42.0	68.6
1969	6	1.2	380	--	--
Total	493	100.0	1114	100.0	69.2*

* Based on 494 respondents, from population of 714 graduates, essentially from 1966 to 1968.

TABLE 8
NUMBER AND PERCENT OF RESPONDENT MALE AND FEMALE GRADUATES
BY CURRICULUM

	Male		Female		Total	
	N	%	N	%	N	%
Secretarial	0	0	30	15.5	30	6.1
General clerical	0	0	2	1.0	2	.4
Accounting	4	1.3	3	1.5	7	1.4
Business management	10	3.3	1	.5	11	2.2
Food services	3	1.0	0	0	3	.6
Retailing	6	2.0	5	2.6	11	2.2
Civil technology	11	3.7	0	0	11	2.2
Electronic technology	10	3.3	0	0	10	2.0
Drafting	2	.7	0	0	2	.4
Industrial electricity	4	1.3	0	0	4	.8
Police management	3	1.0	1	.5	4	.8
Life sciences	18	6.0	4	2.1	22	4.5
Police administration	15	5.0	1	.5	16	3.2
Pre-engineering	13	4.3	0	0	13	2.6
Elementary education	12	4.0	50	25.8	62	12.6
Secondary education	34	11.4	26	13.4	60	12.1
Language arts	18	6.0	31	16.0	49	9.9
Math & physical sciences	39	13.0	8	4.1	47	9.5
Social sciences	25	8.4	27	13.9	52	10.5
Business administration	69	23.0	4	2.1	73	14.8
Other	3	1.0	1	.5	4	.8
Total	299	100.0	194	100.0	493	100.0

TABLE 9
COMPARISON OF DEGREES GRANTED AND RESPONDENTS BY CURRICULAR AREAS

Curriculum[1]	Number of graduates 1966-1968	Respondents N	Respondents % of 66-68 graduates
Career			
Secretarial and office studies	38	32	84.2
Business career	58	32	55.2
Engineering and related technologies	40	27	67.5
Police administration & management	25	20	80.0
Transfer			
Business administration	125	73	58.4
Elementary & secondary education	163	122	74.8
Engineering	16	13	81.3
Liberal Arts[2]	267	170	63.7
Other	0	5	0
Total	732	494	69.2*

[1] Although these curricula are listed as transfer or career, there are sometimes only minor distinctions between the two.

[2] Includes life sciences, communications and the arts, math and physical science, and social science

* This percentage based on the deliverable population of graduates, which was 714.

TABLE 10
NUMBER AND PERCENT OF MALE AND FEMALE RESPONDENT GRADUATES
BY CURRICULAR GROUPS

Curriculum[1]	Male N	Male %	Female N	Female %	Total N	Total %
Career						
Secretarial & office studies	0	0	32	16.6	32	6.5
Business career	23	7.8	9	4.7	32	6.5
Engineering & related technologies	27	9.1	0	0	27	5.5
Police administration & management	18	6.1	2	1.0	20	4.1
Transfer						
Business administration	69	23.3	4	2.1	73	14.9
Elementary & secondary education	46	15.5	76	39.4	122	24.9
Engineering	13	4.4	0	0	13	2.7
Language arts	18	6.1	31	16.1	49	10.0
Life sciences	18	6.1	4	2.1	22	4.5
Math & physical sciences	39	13.2	8	4.1	47	9.6
Social sciences	25	8.4	27	14.0	52	10.6
Total	296	100.0	193	100.0	489	100.0

	Male N	Male %	Female N	Female %	Total N	Total %
Career	68	23.0	43	22.3	111	22.7
Transfer	228	77.0	150	77.7	378	77.3
Total	296	100.0	193	100.0	489	100.0

[1] Although these curricula are listed as transfer or career, there aresometimes only minor distinctions between the two.

TABLE 11
CURRENT EMPLOYMENT STATUS OF MALES AND FEMALES

	Male		Female		Total	
	N	%	N	%	N	%
Employed full-time	92	30.7	82	42.3	174	35.2
Employed part-time	2	.7	2	1.0	4	.8
Student full-time	165	55.0	86	44.3	251	50.8
Student part-time	1	.3	0	0	1	.2
Military service	34	11.3	1	.5	35	7.1
Housewife	0	0	18	9.3	18	3.6
Student part-time employment	2	.7	2	1.0	4	.8
Other	4	1.3	3	1.5	7	1.4
Total	300	100.0	194	100.0	494	100.0

TABLE 12
CURRENT EMPLOYMENT STATUS OF CAREER
AND TRANSFER GRADUATES

	Career		Transfer	
	N	%	N	%
Employed full-time	60	63.1	112	28.4
Employed part-time	1	1.1	3	.8
Student full-time	15	15.8	234	59.4
Student part-time	0	0	5	1.3
Military service	14	14.7	21	5.3
Housewife	4	4.2	13	3.3
Other	1	1.1	6	1.5
Total	95	100.0	394	100.0

TABLE 13
CURRENT EMPLOYMENT STATUS OF GRADUATES BY CURRICULAR GROUPS*

	Summary		Career 1		2		3		4	
	N	%	N	%	N	%	N	%	N	%
Employed full-time	60	63.1	25	75.8	17	53.1	16	61.5	2	50.0
Employed part-time	1	1.1	0	0	1	3.1	0	0	0	0
Student full-time	15	15.8	2	6.1	8	25.0	4	15.4	1	25.0
Student part-time	0	0	0	0	0	0	0	0	0	0
Military service	14	14.7	1	3.0	6	18.8	6	23.1	1	25.0
Housewife	4	4.2	4	12.1	0	0	0	0	0	0
Other	1	1.1	1	3.0	0	0	0	0	0	0
Total	95	100.0	33	100.0	32	100.0	26	100.0	4	100.0

	Summary		Transfer 1		2		3		4		5		6		7		8	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Employed full-time	112	28.4	21	28.8	40	32.8	1	7.7	14	28.6	2	9.1	13	27.7	6	37.5	15	28.8
Employed part-time	3	.8	0	0	0	0	0	0	2	4.1	0	0	0	0	0	0	1	2.0
Student full-time	234	59.4	46	63.0	70	57.4	10	76.9	24	49.0	17	77.3	29	61.7	7	43.8	31	59.6
Student part-time	5	1.3	0	0	2	1.6	0	0	1	2.0	1	4.5	1	2.1	0	0	0	0
Military service	21	5.3	5	6.8	3	2.5	2	15.4	2	4.1	2	9.1	3	6.4	2	12.5	2	3.8
Housewife	13	3.3	0	0	6	4.9	0	0	4	8.1	0	0	0	0	1	6.2	2	3.8
Other	6	1.5	1	1.4	1	.8	0	0	2	4.1	0	0	1	2.1	0	0	1	2.0
Total	394	100.0	73	100.0	122	100.0	13	100.0	49	100.0	22	100.0	47	100.0	16	100.0	52	100.0

* Identification of curricular groups:

Career
1 Secretarial
2 Business career
3 Engineering technology
4 Police career

Transfer
1 Business administration
2 Elementary & secondary education
3 Engineering
4 Language arts
5 Life sciences
6 Math & physical sciences
7 Police administration
8 Social science

TABLE 14
LOCATION OF INITIAL AND CURRENT EMPLOYMENT

	Initial		Current	
	N	%	N	%
Harrisburg tri-county area	121	68.4	121	67.2
Pennsylvania, beyond Harrisburg area	25	14.1	24	13.3
Out-of-state	31	17.5	35	19.4
Total	177	100.0	180	100.0

TABLE 15
CONGRUENCE BETWEEN JOB AND CURRICULUM FOR CAREER GRADUATES ONLY

	Initial		Current	
	N	%	N	%
Consistent	64	92.8	55	93.2
Inconsistent	4	5.8	2	3.4
Indeterminate	1	1.4	2	3.4
Total	69	100.0	59	100.0

TABLE 16
INITIAL AND CURRENT SALARIES REPORTED BY MALES AND FEMALES EMPLOYED FULL TIME

	Initial						Current					
	Male		Female		Total		Male		Female		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Up to 3,999	13	14.4	32	39.5	45	26.3	0	0	3	3.8	3	1.8
4,000-4,499	7	7.8	15	18.5	22	12.9	1	1.1	21	27.0	22	13.1
4,500-4,999	4	4.4	6	7.4	10	5.8	4	4.4	11	14.1	15	8.9
5,000-5,499	15	16.7	10	12.3	25	14.6	7	7.8	5	6.4	12	7.1
5,500-5,999	10	11.1	11	13.6	21	12.3	9	10.0	16	20.5	25	14.9
6,000-6,499	14	15.6	4	4.9	18	10.5	14	15.6	12	15.4	26	15.5
6,500-6,999	10	11.1	2	2.5	12	7.0	17	18.9	5	6.4	22	13.1
7,000-7,499	4	4.4	0	0	4	2.3	8	8.9	1	1.3	9	5.4
7,500-7,999	4	4.4	1	1.2	5	2.9	6	6.7	3	3.8	9	5.4
8,000-8,499	2	2.2	0	0	2	1.2	12	13.3	1	1.3	13	7.7
8,500-8,999	3	3.3	0	0	3	1.8	2	2.2	0	0	2	1.2
9,000-9,499	3	3.3	0	0	3	1.8	3	3.3	0	0	3	1.8
9,500-9,999	1	1.1	0	0	1	.6	1	1.1	0	0	1	.6
10,000 & over	0	0	0	0	0	0	6	6.7	0	0	6	3.6
Total	90	100.0	81	100.0	171	100.0	90	100.0	78	100.0	168	100.0
Median	$5799		$4282		$5170		$6793		$5399		$6133	

TABLE 17
CURRENT SALARY DISTRIBUTIONS FOR CURRICULAR GROUPS*

	Summary		Career 1		2		3		4	
	N	%	N	%	N	%	N	%	N	%
Up to 3,999	1	1.7	0	0	1	6.2	0	0	0	0
4,000-4,499	13	22.4	11	44.0	2	12.5	0	0	0	0
4,500-4,999	10	17.2	5	20.0	4	25.0	1	6.7	0	0
5,000-5,499	5	8.6	1	4.0	2	12.5	2	13.3	0	0
5,500-5,999	6	10.4	4	16.0	0	0	2	13.3	0	0
6,000-6,499	3	5.2	3	12.0	0	0	0	0	0	0
6,500-6,999	6	10.4	0	0	2	12.5	3	20.0	1	50.0
7,000-7,499	3	5.2	0	0	2	12.5	0	0	1	50.0
7,500-7,999	2	3.4	1	4.0	0	0	1	6.7	0	0
8,000-8,499	6	10.4	0	0	2	12.5	4	26.7	0	0
8,500-8,999	0	0	0	0	0	0	0	0	0	0
9,000-9,499	1	1.7	0	0	1	6.3	0	0	0	0
9,500-9,999	0	0	0	0	0	0	0	0	0	0
10,000 & over	2	3.4	0	0	0	0	2	13.3	0	0
Total	58	100.0	25	100.0	16	100.0	15	100.0	2	100.0
Median	$5498		$4649		$5258		$6915		--	

TABLE 17 (continued)
CURRENT SALARY DISTRIBUTIONS FOR CURRICULAR GROUPS*

	Summary		1		2		3		Transfer 4		5		6		7		8	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Up to 3,999	3	2.8	0	0	0	0	0	0	1	7.1	0	0	0	0	0	0	2	13.3
4,000-4,499	8	7.4	1	5.0	2	5.4	0	0	2	14.3	1	50.0	0	0	0	0	2	13.3
4,500-4,999	5	4.6	1	5.0	1	2.7	0	0	2	14.3	0	0	1	7.7	0	0	0	0
5,000-5,499	6	5.6	1	5.0	2	5.4	0	0	2	14.3	0	0	0	0	0	0	1	6.7
5,500-5,999	19	17.6	2	10.0	11	29.7	0	0	0	0	0	0	4	30.7	0	0	2	13.3
6,000-6,499	24	22.2	2	10.0	10	27.0	0	0	5	35.8	1	50.0	2	15.4	1	16.7	3	20.0
6,500-6,999	17	15.7	1	5.0	7	19.0	0	0	1	7.1	0	0	2	15.4	3	50.0	3	20.0
7,000-7,499	4	3.7	1	5.0	1	2.7	0	0	0	0	0	0	0	0	1	16.7	1	6.7
7,500-7,999	6	5.6	3	15.0	2	5.4	0	0	0	0	0	0	1	7.7	0	0	0	0
8,000-8,499	7	6.4	4	20.0	1	2.7	0	0	1	7.1	0	0	1	7.7	0	0	0	0
8,500-8,999	2	1.9	1	5.0	0	0	0	0	0	0	0	0	1	7.7	0	0	0	0
9,000-9,499	2	1.9	1	5.0	0	0	0	0	0	0	0	0	1	7.7	0	0	0	0
9,500-9,999	1	0.9	0	0	0	0	0	0	0	0	0	0	0	0	1	16.7	0	0
10,000 & over	4	3.7	2	10.0	0	0	1	100.0	0	0	0	0	0	0	0	0	1	6.7
Total	108	100.0	20	100.0	37	100.0	1	100.0	14	100.0	2	100.0	13	100.0	6	100.0	15	100.0
Median	$6269		$7665		$6124		--		$5499		--		$6374		$6832		$6082	

* See Table 13 for identification of curricular groups.

TABLE 18
PERCENT RATINGS OF PRESENT JOB BY CURRICULAR GROUPS* AS SUPERIOR OR GOOD

		Career			
	Summary (N=69)	1 (N=26)	2 (N=21)	3 (N=20)	4 (N=2)
Challenging	72.5	80.8	71.4	60.0	100.0
Interesting	79.7	84.6	81.0	70.0	100.0
Good relations	97.1	100.0	95.2	95.0	100.0
Salary	52.2	65.4	33.3	50.0	100.0
Opportunity	52.2	53.8	42.9	55.0	100.0
Overall	75.4	84.6	66.7	70.0	100.0

		Transfer							
	Summary (N=137)	1 (N=28)	2 (N=46)	3 (N=1)	4 (N=17)	5 (N=6)	6 (N=15)	7 (N=7)	8 (N=17)
Challenging	72.8	78.6	71.1	100.0	64.7	50.0	80.0	100.0	64.7
Interesting	78.7	82.1	77.8	100.0	76.5	50.0	73.3	100.0	82.4
Good relations	93.3	92.9	91.1	100.0	100.0	83.3	100.0	85.7	94.1
Salary	48.2	60.7	50.0	100.0	52.9	16.7	40.0	42.9	35.3
Opportunity	55.2	74.1	50.0	100.0	58.8	0	60.0	71.4	41.2
Overall	70.5	75.0	73.3	100.0	68.8	16.7	66.7	100.0	64.7

* See Table 13 for identification of curricular groups.

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TABLE 19
TYPES OF EDUCATIONAL ACTIVITIES BY MALE AND FEMALE GRADUATES

	Male		Female		Total	
	N	%	N	%	N	%
Four-yr. college or university	227	76.9	120	65.9	347	72.7
Employer-training program	12	4.1	7	3.8	19	4.0
Trade or business school	0	0	5	2.7	5	1.0
Other	33	11.2	14	7.7	47	9.9
None	23	7.8	36	19.8	59	12.4
Total	295	100.0	182	100.0	477	100.0

TABLE 20
TYPES OF EDUCATIONAL ACTIVITIES OF GRADUATES BY CURRICULAR GROUPS*, PERCENTAGES

	Summary (N=86)	Career 1 (N=25)	2 (N=31)	3 (N=26)	4 (N=4)
Four-yr. college or university	24.4	8.0	38.7	19.2	50.0
Employer-training program	16.3	8.0	19.4	23.1	0
Trade or business school	0	0	0	0	0
Other	19.8	20.0	12.9	30.8	0
None	39.5	64.0	29.0	26.9	50.0
Total	100.0	100.0	100.0	100.0	100.0

	Summary (N=387)	Transfer 1 (N=73)	2 (N=120)	3 (N=13)	4 (N=49)	5 (N=22)	6 (N=47)	7 (N=13)	8 (N=50)
Four-yr. college or university	83.7	83.6	87.5	100.0	71.4	90.9	78.7	76.9	86.0
Employer-training program	1.3	2.7	.8	0	0	0	0	7.7	2.0
Trade or business school	1.3	0	.8	0	6.1	0	0	0	2.0
Other	7.2	6.8	5.0	0	8.2	9.1	12.8	15.4	6.0
None	6.4	6.8	5.8	0	14.3	0	8.5	0	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*See Table 13 for identification of curricular groups.

TABLE 21
LEVEL OF ACHIEVEMENT (BY SPRING 1969) AT FOUR-YEAR COLLEGES AND UNIVERSITIES BY CAREER AND TRANSFER GRADUATES

	Career		Transfer		Total	
	N	%	N	%	N	%
Now studying for bachelor's degree	15	15.8	176	44.7	191	39.1
Expect bachelor's this year	3	3.2	53	13.4	56	11.5
Received bachelor's degree	1	1.0	69	17.5	70	14.3
Enrolled in full-time graduate study	0	0	11	2.8	11	2.2
Enrolled in part-time graduate study	0	0	9	2.3	9	1.8
None or unknown	76	80.0	76	19.3	152	31.1
Total	95	100.0	394	100.0	489	100.0

TABLE 22

LEVEL OF ACHIEVEMENT (BY SPRING 1969) AT FOUR-YEAR COLLEGES AND UNIVERSITIES FOR TRANSFER CURRICULAR GROUPS

	Summary		1		2		3		4		5		6		7		8	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Now studying for bachelor's degree	176	44.7	29	39.7	50	41.0	9	69.2	23	46.9	10	45.5	26	55.3	6	37.5	23	44.2
Expect bachelor's this year	53	13.4	16	21.9	15	12.3	1	7.7	4	8.2	5	22.7	3	6.4	2	12.5	7	13.5
Received bachelor's degree	69	17.5	12	16.4	30	24.6	2	15.4	7	14.3	2	9.1	4	8.5	2	12.5	10	19.2
Enrolled in full-time graduate study	11	2.8	0	0	2	1.6	0	0	2	4.1	2	9.1	3	6.4	0	0	2	3.8
Enrolled in part-time graduate study	9	2.3	0	0	7	5.7	0	0	1	2.0	0	0	0	0	0	0	1	1.9
None or unknown	76	19.3	16	21.9	18	14.8	1	7.7	12	24.5	3	13.6	11	23.4	6	37.5	9	17.3
Total	394	100.0	73	100.0	122	100.0	13	100.0	49	100.0	22	100.0	47	100.0	16	100.0	52	100.0

* See Table 13 for identification of curricular groups.

TABLE 23

PERCENT RATINGS OF GENERAL SUBJECTS AS HIGHLY BENEFICIAL BY CURRICULAR GROUPS*

	Total Graduates	
	N+	%
English	436	80.7
Social/behavioral science	438	61.6
Mathematics	382	60.5
Humanities	308	51.3
Physical sciences	232	55.2
Life sciences	262	47.7
French or German	164	32.9

	Career Graduates**									
	Summary		1		2		3		4	
	N+	%	N	%	N	%	N	%	N	%
English	83	72.3	28	82.1	26	76.9	25	52.0	4	--
Social/behavioral science	69	44.9	24	54.2	24	41.7	17	--	4	--
Mathematics	61	80.3	11	--	20	85.0	26	100.0	4	--
Humanities	25	24.0	10	--	7	--	7	--	1	--
Physical sciences	22	72.7	0	--	4	--	17	82.4	1	--
Life sciences	11	--	5	--	4	--	2	--	0	--
French or German	5	--	1	--	2	--	1	--	1	--

	Transfer Graduates**																	
	Summary		1		2		3		4		5		6		7		8	
	N+	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
English	353	82.7	63	85.7	107	84.1	13	69.2	48	93.8	22	81.8	40	65.0	12	83.3	48	83.3
Social/behavioral science	369	64.8	63	54.0	117	71.8	11	--	47	70.2	22	50.0	41	31.7	16	87.5	52	88.5
Mathematics	321	56.7	59	72.9	94	51.1	13	100.0	46	32.6	22	59.1	44	75.0	8	--	35	40.0
Humanities	283	53.7	33	30.3	110	59.1	4	--	47	74.5	15	40.0	22	--	5	--	47	61.7
Physical sciences	210	53.3	37	29.7	57	35.1	12	100.0	18	50.0	19	89.5	43	81.4	6	--	18	44.4
Life sciences	251	48.2	18	--	94	48.9	1	--	44	34.1	22	95.5	26	76.9	9	--	37	37.8
French or German	159	33.3	4	--	32	40.6	0	--	45	51.1	16	37.5	22	--	3	--	34	23.5

* See Table 13 for identification of curricular groups

+ N is the total number of raters, upon which the percent rating is based

**Dashed lines (--) indicate categorical ratings by less than five persons

TABLE 24
RATINGS OF TECHNICAL OR PROFESSIONAL SUBJECTS BY SELECTED GROUPS*

Subject	Percent Rating Highly Beneficial**	Percent Rating Little or No Value**
Accounting[1]	23.3, 29.6, 86.2	0, 18.5, 0
Business[2]	92.3, 86.4, 87.3	0, 0, 0
Civil technology[3]	84.7	0
Corrections[4]	--	--
Data Processing[5]	45.5, 47.4	9.1, 0
Drafting[6]	52.7, --	5.3, 14.3
Education[7]	91.0	0
Electrical, electronics[8]	71.4	7.1
Engineering[9]	100.0, 100.0	0, 0
Food services[10]	--	--
Management[11]	75.0, 87.5	0, 0
Marketing[12]	64.7, 88.2	5.9, 0
Office studies[13]	75.0	0
Police administration and science[14]	--, 78.6	--, 0
Secretarial science[15]	100.0	0

* Rated by only students who took subject as required part of their curriculum.
** Dashed lines (--) indicate categorical ratings by less than five respondents.
1 Business career (24), secretarial (27), business transfer (65)
2 Business career (26), secretarial (22), business transfer (55)
3 Engineering technology (13)
4 Police & related areas (1), police transfer (5)
5 Business career (11), business transfer (19)
6 Engineering technology (19), engineering (7)
7 Elementary and secondary education (11)
8 Engineering technology (14)
9 Engineering technology (6), engineering (5)
10 Business career (6)
11 Business career (20), business transfer (40)
12 Business career (17), business transfer (34)
13 Secretarial (16)
14 Police & related areas (4), police transfer (14)
15 Secretarial (28)

TABLE 25
RATINGS OF SEVERAL ASPECTS OF THE EDUCATIONAL PROGRAM BY CURRICULAR GROUPS*

Program Aspects	Rank Order and Percentage Rating as Superior or Good Career Graduates									
	Summary		1 (N=30)		2 (N=31)		3 (N=27)		4 (N=4)	
Your courses, generally	1	98.9	1	100.0	1	100.0	1	96.3	2.5	100.0
Instruction	2	88.0	2	96.7	2	83.9	2	81.5	2.5	100.0
Academic advisement	4	60.9	4.5	66.7	4	51.6	3	59.3	2.5	100.0
Advisement in employment or transfer	5	48.9	4.5	66.7	6	32.3	5	44.4	5.5	75.0
Personal counseling	3	63.0	3	73.3	3	58.1	4	51.9	2.5	100.0
Student activities	6	45.6	6	50.0	5	45.2	6	33.3	5.5	75.0

Program Aspects	Rank Order and Percentage Rating as Superior or Good Transfer Graduates															
	Summary		1 (N=72)		2 (N=121)		3 (N=13)		4 (N=49)		5 (N=22)		6 (N=47)		7 (N=16)		8 (N=52)	
Your courses, generally	1	93.6	1	94.4	1	95.0	1	92.3	1	93.9	1.5	95.5	1	91.5	1.5	87.5	1	92.2
Instruction	2	87.4	2	90.3	2	89.3	2	92.3	2	91.7	1.5	95.5	2	80.4	1.5	87.5	2	76.5
Academic advisement	3	48.1	5	37.5	3	48.3	3	76.9	4	54.2	3	40.9	3	48.9	3.5	66.7	4	46.2
Advisement in employment or transfer	6	37.4	6	31.9	6	36.5	5	38.5	3	56.3	5	36.4	6	24.4	5	38.5	6	40.4
Personal counseling	5	40.6	4	37.7	5	37.6	4	53.8	6	44.7	5	36.4	4	37.8	3.5	66.7	5	41.2
Student activities	4	41.3	3	39.4	4	44.1	6	7.7	5	52.1	5	36.4	5	34.8	6	31.3	3	47.1

* See Table 13 for identification of curricular groups

TABLE 26
RATINGS OF EDUCATION AT H.A.C.C. AS PREPARATION FOR JOBS OR TRANSFER BY CURRICULAR GROUPS*

	Rank Order and Percentage Rating as Superior or Good Career Graduates									
	Summary		1 (N=28)		2 (N=31)		3 (N=27)		4 (N=3)	
Technical knowledge and understanding	1	92.1	2.5	96.4	2	87.1	1	92.6	2.5	100.0
Job or learning skills	3	83.9	1	100.0	4	80.0	4	69.2	2.5	100.0
Interpersonal relations	2	88.5	2.5	96.4	1	89.7	2	77.8	2.5	100.0
Self-understanding	4	82.8	4	82.1	3	86.7	3	76.9	2.5	100.0

	Rank Order and Percentage Rating as Superior or Good Transfer Graduates															
	Summary		1 (N=71)		2 (N=113)		3 (N=13)		4 (N=46)		5 (N=19)		6 (N=44)		7 (N=16)		8 (N=51)	
Technical knowledge and understanding	3	76.6	4	77.9	4	75.2	1	92.3	2	82.2	1	84.2	2.5	72.7	3	81.3	3	65.9
Job or learning skills	4	72.7	3	78.5	3	76.2	2	87.5	4	72.1	4	61.1	4	75.0	4	80.0	4	62.8
Interpersonal relations	1.5	80.8	1	84.5	2	81.1	3	50.0	1	93.5	2.5	70.6	2.5	72.7	2	86.7	2	78.4
Self-understanding	1.5	80.0	2	82.9	1	85.0	4	44.4	3	80.4	2.5	70.6	1	79.5	1	93.8	1	82.0

* See Table 13 for identification of curricular groups.

TABLE 27
RECOMMENDATIONS OF H.A.C.C.

	Summary		Sex				Marital Status			
			Male		Female		Married		Single	
	N	%	N	%	N	%	N	%	N	%
Yes	467	91.9	269	91.8	176	92.1	276	90.8	153	93.3
No	41	8.1	24	8.2	15	7.9	28	9.2	11	6.7

	Age						Associate Degree					
	Up to 24		25-29		30-up		1966		1967		1968	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	381	92.0	47	90.4	17	94.4	103	88.8	147	93.6	189	92.6
No	33	8.0	5	9.6	1	5.6	13	11.2	10	6.4	15	7.4

Career Graduates*

	Summary		1		2		3		4	
	N	%	N	%	N	%	N	%	N	%
Yes	89	96.7	32	100.0	29	93.5	24	96.0	4	100.0
No	3	3.3	0	0	2	6.5	1	4.0	0	0

Transfer Graduates*

	Summary		1		2		3		4		5		6		7		8	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Yes	352	91.2	70	97.2	108	90.0	10	76.9	45	93.8	17	81.0	41	89.1	14	93.3	47	92.2
No	34	8.8	2	2.8	12	10.0	3	23.1	3	6.2	4	19.0	5	10.9	1	6.7	4	7.8

* See Table 13 for identification of curricular groups.